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Perceptions of knowledge sharing within hybrid learning environments: as iron sharpens iron among graduate students

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PERCEPTIONS OF KNOWLEDGE SHARING WITHIN HYBRID LEARNING ENVIRONMENTS: AS IRON SHARPENS IRON AMONG GRADUATE STUDENTS

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ABSTRACT

Knowledge sharing is an important mechanism for strengthening student learning (Petrides & Nodine, 2003), which pertains to the activities or behaviors involving the spread of knowledge between individuals (Jalal, Toulson, & Tweed, 2010) and the willingness of those individuals to share their knowledge with each other (Gibbert & Krause, 2002). Scholars have previously studied knowledge sharing behaviors in corporate environments (Hendriks, 1999; Nelson & Cooprider, 1996; Wasko & Faraj, 2005); however, few studies have focused on hybrid environments in higher education. This qualitative research study explored the learning perceptions of knowledge sharing among graduate students within hybrid learning environments.

Eleven doctoral and master's degree students participated in this phenomenological investigation providing authentic descriptions of their lived experiences. The study results included eight themes that emerged from the key findings: (a) Knowledge is Shared Learning; (b) Preferred Conditions Best Facilitate Knowledge Sharing; (c) The Concept of Reciprocal Learning Motivates Knowledge Sharing; (d) Perceptions of Others Is a Barrier to Knowledge Sharing; (e) Knowledge Sharing Occurs Both Virtually and Face-to-Face; (f) Knowledge Sharing Allows for Learning from Others' Experiences; (g) Knowledge Sharing Benefits Overall Student Learning Experiences; and (h) Hybrid Learning Environments Support Knowledge Sharing. The potential implications for policy and practice are discussed along with possible recommendations for future research.

Chapter One: Introduction to the Study

Background of the Study

Educational institutions strive to develop competent, lifelong learners and play an integral role in promoting the lifelong learning concept through their academic programs (Yang & Roche, 2015). Lifelong learning seeks to include the valuable learning that is acquired through shared experiences and interaction with others (Bagnall, 2009). In this shifting of educational paradigm, the purpose of higher education is to effectively support learning that prepares students to creatively and collaboratively apply competencies in a sophisticated, ever-changing society (Kuit & Fell, 2010). To support these shifts in educational practice, transformation of learning environments in higher education settings is critical (C. Williams, 2002). Hybrid learning environments, in which academic programs are part online and part face-to-face, are fundamentally changing how learners interact in the learning environment (Simons, Van der Linden, & Duffy, 2000; Tynjälä, Välimaa, & Sarja, 2003). As a result, there are now more groups and teams working together within higher education online learning environments (Stunkel, 1998).

Research has demonstrated that when students are allowed to work collectively to achieve solutions for team projects and perceive different ideas, they can learn more effectively (Johnson & Johnson, 1999). The use of educational technology and collaborative activities during group interaction can enhance student learning (Alavi, Yoo, & Vogel, 1997; E. Williams, Duray, & Reddy 2006). Another important mechanism for advancing student learning is *knowledge sharing* (Petrides & Nodine, 2003), which pertains to the activities or behaviors involving the spread of knowledge between individuals (Jalal, Toulson, & Tweed, 2010) and the

willingness of those individuals to share their knowledge with each other (Gibbert & Krause, 2002).

Utilizing knowledge sharing as a tool to enhance collaboration and potentially strengthen student learning experiences is emerging as a research study topic. Scholars have previously studied knowledge sharing behaviors in corporate environments (Hendriks, 1999; Nelson & Cooprider, 1996; Wasko & Faraj, 2005), but few studies have focused on hybrid learning environments in higher education in which individuals often engage in group learning tasks. Group performance is favorably impacted by knowledge sharing as it entails that group members participate in group discussions to exchange ideas and provide feedback to each other (Cannon & Edmondson, 2001). Knowledge sharing can facilitate efficient interactions and involves sharing collective beliefs, assumptions, and knowledge (H. Clark & Brennan, 1991).

Knowledge sharing is an important activity in which participants need to disseminate their existent knowledge and also build knowledge by using critical thinking, explanation, clarification, and reflection from diverse perspectives. A key aspect of knowledge sharing, according to Rosen (2007), is the point to which participants are actually amenable to sharing their knowledge with another person. The fact that knowledge exists in one area does not guarantee that it will be diffused among other areas. Gupta (2008) emphasized that successful knowledge sharing efforts incorporate people's attitudes, values, beliefs, and behaviors. Most efforts to enhance knowledge sharing behaviors have included technological approaches without a focus on how knowledge transfers between people. Therefore, many of these technological approaches do not help illustrate or increase current understanding of knowledge sharing (Marques, Cardoso, & Zappalá, 2008).

Although the occurrence of knowledge sharing manifests in multiple ways, it most frequently takes the form of group discussions. Group discussions that occur within numerous virtual courses are facilitated to stimulate students to question, synthesize, and advance their present knowledge by extensively interacting with other discussion group members (Garrison, Anderson, & Archer, 2001). These verbal group interactions occur via in-person conversations and through the means of virtual technology.

According to Vygotsky (1967), social interaction is an important element of cognition and is enabled through participative group discussion, problem solving and knowledge sharing. Group discussion channels cognitive thinking through explaining, questioning, and clarifying ideas. It is through such cognitive processes that learners generate new knowledge (A. Brown & Palinscar, 1989; Gunter & Thomson, 2007; Jonassen, Davison, Collins, Campbell, & Haag, 1995; Norman, 1993). However, numerous study findings have suggested that engagement in student group discussions does not invoke critical thinking and is seldom cultivated into deeper communication that leads to the creation of new knowledge (Tallent-Runnels et al., 2006).

As an evolution in the process of learning, digital learning is being widely adapted and used all over the world with knowledge sharing currently playing a significant role therein, as it is central to the activities most relevant to the digital learning process (Qorbani, Vanani, Sohrabi, & Forte, 2015). The effective sharing of knowledge during virtual learning activities will unlock possibilities, inspire creative minds, and ensure that educational programs implement the notion of lifelong learning (Tella, Alias, & Ithnin, 2009). Higher education institutions have realized that knowledge is a driving force for organizational innovation and change. Therefore, maximizing knowledge sharing efforts amongst its students will lend to the improvement of the

competitiveness, productivity, and organizational effectiveness of these universities in producing skilled leaders for the 21st century.

A potential negative impact of higher education institutions not fostering knowledge sharing is the decreased ability of those institutions to provide a better service to society by graduating knowledgeable candidates into professional practice. The challenge for higher education institutions who offer digital learning is to steer its academic programs toward the much-desired knowledge sharing as it may better support socially active and engaging hybrid learning environments. Because knowledge sharing is an intricate, multi-faceted concept (Alavi & Leidner, 2001), attempting to understand it from a more fundamental, human-to-human perspective may serve to lessen potential incongruity in knowledge sharing processes at postsecondary institutions (Frank, Zhao, Penuel, Ellefson, & Porter, 2011; P. Lee, Gillespie, Mann, & Wearing, 2010; White, 2007).

Various determinants that impact the behavior of knowledge sharing have emerged from the literature, however, empirical evidence is fragmented regarding the presence and impact of these factors. As a result, there is not a complete understanding of knowledge sharing behaviors among groups and individuals (Frank et al., 2011) or within academic and practicing communities (White, 2007). Particularly, there are research gaps regarding graduate students' perceptions of knowledge sharing within hybrid learning environments (Frank et al., 2011; P. Lee et al., 2010; White, 2007) and the potential benefits that these perceptions might furnish. This lack of understanding may engender lessened appreciation of the powerful effects of knowledge sharing (Davenport & Prusak, 2000).

Problem Statement

As knowledge sharing is considered a cardinal element in the process of learning, it is necessary that in its efforts to support and advance student learning, higher education adequately understand its students' perceptions of knowledge sharing and the impact, if any, of knowledge sharing practices and behavior on student learning experiences. Previous studies on knowledge sharing have mostly examined organizational settings, however, information is considerably minimal in specific regard to the knowledge sharing practices and behaviors of individuals enrolled in hybrid format master's and doctoral degree academic programs. Therefore, a need exists to explore perceptions of knowledge sharing of graduate students within hybrid learning environments.

Purpose Statement

The purpose of this phenomenological investigation is to explore perceptions of knowledge sharing among graduate students within hybrid learning environments. This qualitative research study will examine the lived experiences of higher education students currently enrolled in hybrid (part face-to-face and part online) academic programs at a private university in attempt to understand knowledge sharing activities and behaviors that occur between graduate student peers within a hybrid academic program cohort. The study seeks to provide an authentic insight into the perspectives of participants who have firsthand experience with the phenomenon of this investigation.

Importance of the Study

Since gaps exist within the literature in understanding about knowledge sharing from the human-to-human perspective, this study will attempt to uncover graduate students' individual perceptions of knowledge sharing within hybrid learning environments to narrow the research

gap in this topic area. Further, these "perceptions present us with evidence of the world—not as it is thought to be, but as it is lived" (Richards & Morse, 2007, p. 49). The study is important because its findings may benefit knowledge sharing efforts in higher education through deeper understanding of knowledge sharing practices and behaviors within graduate level hybrid learning environments. This increased awareness of how knowledge is shared may influence the integration and capacity of knowledge sharing processes in higher education, thus enhancing overall student learning experiences.

Higher education students and faculty may potentially benefit from the study findings in that effective knowledge sharing within a postsecondary institution might heighten the quality and efficiency of its graduates who can then satisfy the needs of the professional employment market. The outcomes of this study might be utilized within higher education learning environments to impact educational experiences that foster knowledge sharing among graduate student peers. This study will potentially add to what currently exists in professional literature by providing a glimpse into the phenomenon of knowledge sharing within higher education hybrid learning environments. It is important to conduct this study in this manner and at this time because it may encourage a deeper understanding of knowledge sharing behaviors amongst adult learners. Specifically, this qualitative exploration may uncover findings that meaningfully benefit student learning.

Definition of Terms

For the goal of this investigation, the term *perception* pertains to the occurrence of capturing and becoming cognizant of an objective reality comprised of objects that are present independently of an individual's sense of self (Maund, 2003).

The term *knowledge*, for the intention of this study, shall be defined as consisting of a robust combination of contextual information, insight, experience, attitudes, and beliefs that frame the evaluation and integration of new information and experiences (Davenport & Prusak, 2000).

For the goal of this research, the term *knowledge sharing* is defined as an ongoing process in which individuals within an organization or group communicate to share thoughts, ideas, or solutions with the goal of ongoing voluntary exchanges of knowledge to the benefit of the organization or group (Davenport & Prusak, 2000) and specifically entails activities or behaviors involving the transmission of knowledge from one individual to another (Jalal, Toulson, & Tweed, 2010).

The concept of *trust*, for the intent of this research study, will be defined as a person's consent to being vulnerable with another individual in the belief that the other person is reliable (Coulson, 1998; Zand 1997). Trust is considered a complex, multi-faceted concept that brings forth interdependence and vulnerability (Tschannen-Moran & Hoy, 2000) and refers to one's willingness to be vulnerable with another individual grounded upon one's belief that the individual is concerned, reliable, open, and competent.

For the purpose of this investigation, the concept of *hybrid learning environments* will refer to learning design models that is include a combination of traditional, in-person class time with online course work conducted outside of the classroom. A hybrid learning environment includes both the physical and virtual settings, along with the collection of tools, artifacts, and documents that can be observed in such setting in which learners experience their learning.

Theoretical Framework

Malcolm Knowles's model of andragogy asserts that adults are self-directed learners and that they anticipate taking responsibility for decision-making. Knowles's theory, formulated explicitly for adult learning, is based on six assumptions (Knowles, Holton, & Swanson, 2014). The initial assumption involves the adult learner's need to know. An adult learner desires to know what they are learning, how they will learn it and why they are required to learn a particular topic. The second assumption is that as adults mature in their educational lifetime, they feel capable of autonomy and being self-directed learners. The third assumption is that adults encounter learning activities with a different type of background than youth learners due to their prior accumulated experiences. The fourth assumption is that adults have a readiness to learn, while the fifth assumption is that adults are oriented to problem-centered learning rather than learning that is subject-centered. Adults see the learning as a future or current need. The last assumption is that adults have an internal motivation to learn (Knowles, 1984; Knowles, Holton, & Swanson, 1998).

According to Malcolm Knowles, self-directed learning is a method by which a person takes an initiative in determining their personal needs for learning, constructs their own goals for learning, identify both material and human resources needed for their learning, select and apply useful learning strategies, and then assess the outcomes of their learning. Because self-directed learners are those who are proactive and take action in their own learning, they learn better and their learning surpasses that of reactive learners (Knowles et al., 2014). Since not all adult learners are self-directed, as noted by Brookfield (1995), ensuring that learning is self-directed can be considered a goal of adult education.

In discussing self-directed learning, both the learners and the instructors must be aware that this process is different from what is considered typical in the classroom. The conventional process involves the instructor standing in front of the classroom and delivering the instructional material content. In this traditional classroom setting, the learners are expected to listen, take notes, and absorb the material being presented to them. In terms of Knowles's description of self-directed learning, there are competencies that are necessary in order to be effective at using this type of learning strategy. Some of these competencies include the concept of the learner being an independent and a self-directing person. Next, is the learner's ability to develop measurable learning objectives based on his/her learning needs. Another competency involves the ability to give and receive help from peers, see peers as resources for determining learning objectives and planning learning, and relate to peers collaboratively (Knowles et al., 2014).

The most abundant resources for collaborative adult learning dwell within the adult learners themselves because adult learners enter learning environments with a mass of valuable experience (Knowles, 1980, 1984; Knowles et al., 1998, 2014). The accumulated set of experiences that adult learners possess enhances problem solving and group discussions (Knowles, 1980). To understand the essence of adult learners and to nurture a collaborative virtual environment, andragogical assumptions should be used (Burge, 1988). Burge (1988) further suggested that these andragogical assumptions can help educational institutions create a more learner-centered approach. Accordingly, andragogy should be used as a starting point for approaching the adult hybrid learning environment.

Research Questions

In this phenomenological research study, the overarching research question is: What are the perceptions of knowledge sharing among graduate students within hybrid learning

environments? Additional research questions include: What are the lived experiences of graduate students with regard to knowledge sharing during group discussions within hybrid learning environments? What effects, if any, does the phenomenon of knowledge sharing have on overall student learning experiences for graduate students within hybrid learning environments? The research questions in this investigation will seek to understand "the object of human experience" (Van Manen, 1990, p. 163) and "the importance of the individual experiences of people as conscious human beings" (Creswell, 2007, p. 236).

Limitations

The limitations of a research study pertain to the "potential weaknesses or problems with the study identified by the researcher" (Creswell, 2007, p. 198). A possible limitation of this research study is that "because qualitative research occurs in the natural setting, it is extremely difficult to replicate studies" (Wiersma, 2000, p. 211). The sample population and setting in this research study will include individual graduate students involved in a hybrid learning environment at a private university. This selection will not allow for universal application of its findings in other organizational contexts. The hybrid learning structure in which the participants of this study are engaged in creates a unique culture as compared to the broader scope of higher education institutions. Consequently, the results from this research study potentially may not generalize to non-hybrid learning environments.

Another potential limitation is researcher bias. Researcher bias may present a challenge in maintaining an objective viewpoint since preconceived ideas may shape what a researcher interprets participants to be relating (Seidman, 2006). Although a person's reality cannot be separated from he/she already knows based on his/her experiences and lives (Krieger, 1991), researchers must support the integrity of the research (Creswell, 2009). Therefore, a researcher

must only focus on what the research participants present and not allow the influence of biases to occur (Moustakas, 1994). To avoid researcher bias, Moustakas (1994) urged researchers to withhold any bias or opinions that the researcher may hold, and if researcher bias is recognized, the researcher must document any such bias or opinion.

Efforts to limit bias include recognizing assumptions and fully disclosing the researcher's history and role. Additional efforts include revisiting these assumptions when reporting data collection and analysis to review and determine their possible effects on the data. The researcher in this study assumes that participants will honestly and candidly recount their own individual lived experiences with the phenomenon. The researcher's role and history within the private institution as that of a third-year doctoral student in Pepperdine University's Educational Leadership, Administration, and Policy hybrid academic program and alumna of Pepperdine University's Educational Leadership Academy master's degree program will be disclosed and the researcher will exclude participants from her own academic program cohort to minimize bias. Because the researcher in this study has participated in hybrid learning environments, the researcher's interpretation of the data may influence the accurate reporting of the results due to the researcher's personal experience. To address this potential bias, the researcher will utilize ATLAS.ti software to code the collected data.

Further, to distinguish the researcher's personal experience from the collected data, this investigation will utilize *bracketing* to separate the lived experience of the participant from that of the researcher (Husserl, 1913/2010; Moustakas, 1994). Bracketing, or *epoché,* requires recognizing that the process of collecting data occurred through the lens of personal experience while at the same time preserving the research data's integrity. Although bracketing does not rid bias completely in the research study, it provides a method to gather, analyze, and then report

findings of the data in the purest manner possible (Moustakas, 1994).

Delimitations

In order to restrict the breadth of the study for manageability, boundaries are set. Delimitations refer to the boundaries or constraints that make the scope of the research feasible. These delimitations impact the generalizability of the research study (Leedy & Ormrod, 2005). Participation in this investigation was delimited to graduate students enrolled in hybrid learning academic programs, either master's or doctoral level; of one school, the Graduate School of Education and Psychology; at one private higher education institution, Pepperdine University for study manageability. This qualitative study will examine the participants' perceptions of knowledge sharing within the unique educational structure of hybrid learning environments. Generalization to other graduate level academic programs which may be similar in format at other private institutions may not be suitable.

Assumptions

Assumptions can be considered that which the researcher accepts to be true (Leedy & Ormrod, 2005). This research study contains two key assumptions made by the researcher. The first assumption in this research study is that each participant's individually held perception of knowledge sharing is based upon his/her experience with the phenomenon being studied. The researcher assumes that the study participants will respond openly and honestly to interview questions to share their lived experience in order to provide the richest and most authentic understanding of how participants perceive knowledge sharing within his/her hybrid learning environment. The other assumption in this research study is that the researcher will be able to isolate her own personal experiences from the research study participants' lived experiences and record the data accurately, drawing logical conclusions from the available information.

Organization of Study

The organization of this research study is designed to provide an understanding of the problem and its significance. This qualitative study will be presented in five chapters. Chapter One includes an introduction to the research study. The first chapter detailed the problem being researched in the study, the research study's purpose, and nature of the study. Chapter Two of the dissertation will present a review of current literature relevant to the problem considered in this research study, providing a conceptual framework for understanding the problem. Chapter Three will discuss the methodology of the study, including the process of collecting data and the data analysis method. Chapter Four will present the findings of the investigation. The last chapter of the research study, Chapter Five, will present a summarization of the entire study, a discussion of research findings, and recommendations for continued study in this research topic area of knowledge sharing within hybrid learning environments.

Chapter Two: Review of Literature

Knowledge resides within individual society members more so than it is shared by the entire society (Nonaka & Konno, 1998). Consequently, the movement of knowledge across individuals is dependent upon a person's willingness to share his/her personal knowledge with others (J. Lee, 2001; Wasko & Faraj, 2005). In this study, perceptions of knowledge sharing among graduate students engaged in hybrid learning environments will be explored. This chapter will provide a review of literature to give a theoretical grounding and context for this research study. After outlining the problem and key variables of the study, the scope and organization of Chapter Three will be further detailed.

Problem and Key Variables

The problem in this qualitative research study is a lack of understanding about the perceptions of knowledge sharing among graduate students within hybrid learning environments in a private higher education institution. This phenomenological study will be guided by research questions which seek to understand "the object of human experience" (Van Manen, 1990, p. 163) and "the importance of the individual experiences of people as conscious human beings" (Creswell, 2007, p. 236). In this phenomenological research study, the overarching research question is: What are the perceptions of knowledge sharing among graduate students within hybrid learning environments? Additional research questions include: What are the lived experiences of graduate students with regard to knowledge sharing during group discussions within hybrid learning environments? What effects, if any, does the phenomenon of knowledge sharing have on overall student learning experiences for graduate students within hybrid learning environments? The research questions in this investigation will seek to understand "the object of

human experience" (Van Manen, 1990, p. 163) and "the importance of the individual experiences of people as conscious human beings" (Creswell, 2007, p. 236).

The key variables in this research study that will be discussed in the literature review are knowledge sharing, knowledge sharing motivators, knowledge sharing barriers, and trust.

Scope and Organization

The literature review commences with an examination of the theory of andragogy as presented by Malcolm Knowles to set the theoretical framework for the study. The next section of Chapter Two provides context information for the research study followed by a discussion of the key variables: knowledge sharing, knowledge sharing motivators, knowledge sharing barriers, and trust. This chapter will discuss the meaning of the term knowledge sharing will be considered by examining its root definitions. The final portion of this chapter summarizes the literature that supports the investigation. A review of previous empirical studies about motivators and barriers to sharing knowledge will be presented. Next, this section demonstrates the current research gap in understanding the practices and behaviors of knowledge sharing within higher education hybrid learning environments. The Chapter Two summary will support the rationale of the research study and research questions. While the later chapters of this dissertation elaborate on the methodology and findings of the study, this chapter discusses the literature review findings as they pertain to the key variables of the study and any related, emerging themes or concepts from the literature.

Theoretical Framework

Knowles' theory of andragogy. Andragogy as a concept has been in existence for some time, with the term andragogy reportedly fully recognized by scholars in the 19th century (Forrest & Peterson, 2006; Knowles, Holton, & Swanson, 2005; Sandlin, 2005). An American

educator named Malcolm Knowles applied the term andragogy in connection to adult education. Although Knowles is given significant credit for promoting the theory of andragogy, the topic of how adults learn and how that learning is different from the way in which children learn was written about prior to Knowles's writing on the topic. The term andragogy was initially used in 1833 by Alexander Kapp, a German educator (Smith, 2010). Knowles gave credit for his development of the andragogy theory to many theorists before him, including Kapp and to various fields of study. Knowles specifically referenced various important developments in sociology, psychology, and education that made the development of his own theory possible (Knowles et al., 2005; M. Wilson, 2004). Knowles officially introduced his andragogy theory in the 1970s. The theory specifies the differences between how adults and children learn and why these differences are important assumptions to consider when educating adults (Knowles et al., 2005).

The notion that adults learn in a different manner than children has been amply cited in literature. Educational research describes how individuals learn by using two terms: pedagogy and andragogy (B. Taylor & Kroth, 2009). The Latin root *ped* means child (Smith, 2010), which makes the meaning of the term pedagogy the science and art of teaching children (Conner, 2004; Knowles, 1980). Meanwhile, the word andragogy is derivative of the Greek root *andros*, which literally means *man*. Andragogy is the science and art of adult learning according Knowles, and therefore, andragogy pertains to any type of adult learning (Kearsley, 2010; Knowles, 1980).

Adult learning. Adult learning utilizes knowledge and life experiences by encouraging collaboration and acknowledgement of the adult learner's contributions. The experiences that adults bring into a learning situation are a valuable resource for learning and provide a richer meaning when attached to new ideas and skills (M. Knowles, 1996). Knowles (1980, 1984,

1990) outlined several main characteristics of adult learners. Adult learners want to know why it is necessary for them to learn something prior to them learning it and need to be given the freedom to take accountability for their own choices. Adult learning is described as goal-oriented and the intended learning outcomes should be identified clearly. The motivation to learn is increased when the assigned tasks directly contribute to the adult learner achieving his/her personal learning objectives. Adult learning emphasizes practicality, and adult learning is best facilitated when applicable ways of implementing theoretical knowledge into real-life situations are known. Hence, the need to acquire adequate and relevant knowledge is of high importance.

Principles of andragogy. Andragogy is primarily a "model of assumptions" (Knowles, 1980, p. 43). Knowles's model of andragogical assumptions regarding the attributes of adult learners deviate from pedagogical assumptions traditionally held about child learners. Knowles originally made four assumptions or principles about the characteristics of adult learners (andragogy) and later added a fifth and sixth principle of andragogy (Kearsley, 2010; Knowles, 1980, 1984).

According to Malcolm Knowles, there are six main principles of andragogy (Kearsley, 2010; Knowles, 1980, 1984). The first principle is an adult learner's need to know what they are learning and why and how they are learning something. The second principle is self-concept of the adult learner. The third principle entails the prior experience of the adult learner. The fourth principle of andragogy is an adult's readiness to learn while the fifth principle involves an adult's orientation to learning. The final andragogical principle is the adult learner's motivation to learn (Knowles, 1980, 1984; Knowles et al., 1998).

Andragogy principle 1: The adult learner's need to know. The model of andragogy is founded on certain assumptions that vary from the model of pedagogy (Kearsley, 2010;

Knowles, 1984). The first andragogical principle is the need for adult learners to know what they will learn, how they will learn it, and why they must learn an item before assenting to learn it (Knowles, 1980, 1984; Knowles et al., 1998). Tough (1979) found that in instances in which adults embark upon learning something on their own accord, they will devote substantial effort in inquiring about the gains that they will yield from the learning and the unfavorable results of not undertaking the learning. Correspondingly, one of the first tasks of the facilitator of adult learning is to ensure that the adult learner's need to know is satisfied.

Andragogy principle 2: Self-concept of the adult learner. Adults have a self-concept that includes holding responsibility for determining their own decisions; they feel capable of autonomy and self-direction. Because the adult learner is self-directed, he/she wants to be perceived as self-directing to others (Knowles, 1980, 1984; Knowles et al., 1998). Adult learners are "bound to be tainted with resentment and resistance" (Knowles, 1972, p. 34) when they find themselves in situations or environments in which they are not allowed to be self-directing (Gitterman, 2004). Subsequently, the adult learner needs to have control over setting his/her own learning goals (Brookfield, 1986).

Andragogy principle 3: Prior experience of the adult learner. Adult learners are farther diversified in their experiences in regards to interests and motivation, style of learning, needs, goals, and background than that of child learners. Adults enter a learning environment with an accumulated set of experiences that becomes a profound asset for learning (Knowles, 1980, 1984; Knowles et al., 1998); indeed, the richest resources for adult learning come from adult learners themselves. Therefore, methods such as group discussions or problem solving activities that tap into their experience allows for adults to learn more effectively (Knowles 1980).

Conversely, the wealth of experience that adult learners possess can possibly also have some adverse consequences. As adult learners accrue experience, they are apt to establish presuppositions and biases that can cause them to be less open-minded to alternative ways of thinking and new ideas (Knowles, 1980, 1984; Knowles et al., 1998). As adults mature, they may describe themselves in relation to the experiences they have had because "to an adult learner, his experience is who he is" (Knowles, 1972, p. 35).

Andragogy principle 4: The adult learner's readiness to learn. Adults readiness for learning is attributed to that which they believe they need to know and that which they must have the capability to efficiently perform in a real world capacity (Knowles, 1980, 1984; Knowles et al., 1998). As adults mature, they are more interested in and ready to learn topics that are immediately relevant to their work and personal lives (Smith, 2010). A valuable basis of readiness to learn involves tasks that progress through developmental stages. The essential connotation of this principle is the importance of aligning the learning experiences with those developmental tasks (Knowles, 1980, 1984; Knowles et al., 1998).

Andragogy principle 5: The adult learner's orientation to learning. An adult learner's orientation towards learning is task-centered, life-centered, or problem-centered. An adult's orientation to learn is to the degree that they discern to which the learning will help them in their performance of a task or in addressing real-life problems. Furthermore, adults most effectively learn and acquire new knowledge and information when it is presented to them within the frame of real-life application. (Knowles, 1980/1984; Knowles et al., 1998). As adults mature they prefer immediate application, instead of future application, of knowledge and information gathered. As a result, adults are most often problem-centered in their orientation to learning (Knowles, 1980/1984; Knowles et al. 1998; Smith, 2010).

Andragogy principle 6: The adult learner's motivation to learn. As adult learners mature, they develop an internal motivation to learn (Knowles, 1984; Smith, 2010). Adults are also responsive to external motivators such as job-related promotions and increased salaries but the most compelling motivators are internal desires such as wanting heightened job satisfaction and quality of life. In Tough's (1979) research, he found that adults are motivated to continue developing and growing, but that this motivation is oftentimes hindered by such barriers as lack of access to resources and opportunities, time constraints, negative self-image as a student, and breach of the principles of adult learning.

Evolution of the andragogical model. Originally, Knowles presented andragogy as having four assumptions or principles (Knowles, 1975, 1978, 1980). However, the number of principles has increased over the years, now totaling six with the last principle added in 1984 (Knowles, 1984). The andragogical model expanded in subsequent years with the inclusion of the need to know principle (Knowles, 1989, 1990). In Knowles's book *The Modern Practice of Adult Education: Andragogy versus Pedagogy* (Knowles, 1970; Knowles et al., 1998) andragogy was presented as a model for adults and pedagogy a model for children. But, in the revised edition of *The Modern Practice of Adult Education* (Knowles, 1980, 1984; Knowles et al., 1998), the subtitle was changed to *From Pedagogy to Andragogy*. Knowles based this new subtitle on reports of elementary teachers, secondary teachers, and college educators experimenting with the application of the model of andragogy and observing that youth learners seemingly learned better when some elements of andragogy were applied (Knowles, 1984).

In his examination of the applications of andragogy, Knowles (1984) arrived at particular conclusions. The first conclusion is that the andragogical model is a structure of components that can be utilized in whole or partially adapted. The model of andragogy is not an ideology that

must be enforced comprehensively. According to Knowles, a fundamental element of andragogy is adaptability with the "appropriate starting point and strategies for applying the andragogical model dependent upon the situation" (p. 418). Further, Merriam and Caffarella (1999) declared that they viewed andragogy as an abiding model to buttress the understanding of adult learning. "It does not give us the total picture, nor is it a panacea for fixing adult learning practices. Rather, it constitutes one piece of the rich mosaic of adult learning" (p. 278).

Criticisms of andragogy. For all of its popularity, the andragogy model theory has created significant controversy in the literature regarding adult education. One criticism is whether andragogy is a learning theory, a set of assumptions about adult learners, or simply a guide for how to teach adults (Knowles et al., 2005; Sandlin, 2005; M. Wilson, 2004). Knowles et al. (2005) responded to this criticism by defining a theory as "a comprehensive, coherent, and internally consistent system of ideas about a set of phenomena" (p. 10). Knowles believed that andragogy is in fact a learning theory since it explains an obscure phenomenon, illustrating key components of adult learning. Another criticism derived from the argument that andragogy is based on psychology, which is considered a soft science; whereas, neuroscience has been touted as having demonstrated gains in the understandings of the human mind and education (Bruer, 1999).

Other critics have found Knowles's model too simplistic and argued that it does not explain biological or social elements such as intelligence or trauma that can relate to an adult's ability to learn (Bruer, 1999; Knowles, 2005; Sandlin, 2005; M. Wilson, 2004). Some opponents of Knowles's theory of andragogy have mentioned that empirical testing regarding andragogy is not adequate (Grace, 1985; Pratt, 1993). However, other influential models or theories of adult learning also have not been sufficiently tested empirically (Caffarella, 1993; M. Clark, 1993;

Hiemstra, 1993; Merriam & Caffarella, 1999) and need additional research. In his autobiography, Knowles (1989) acknowledged that he did not further regard andragogy as a comprehensive theory: "I prefer to think of it as a model of assumptions about adult learning or a conceptual framework that serves as a basis for emerging theory" (p. 112). Furthermore, Knowles has admitted that there are limitations of the theory, with more research needing to be completed, emphasizing the challenges that researchers face when trying to measure effectiveness of adult education or adult training programs (Knowles et al., 2005). Still, Knowles et al. (2005) contended that andragogy is a working model that has meaningful research to support its efficiency considering that the theory was not designed to explain the learning construct of every adult.

Andragogy and higher education. According to their research, Thompson and Deis (2004) suggested that, based on their course descriptions, universities tend to focus on learning content rather than how to actually help adults learn. In connection with andragogical principles, Thompson and Deis (2004) addressed curriculum development and disclosed findings through informal conversation that many higher education faculty members were not aware of nor use the term andragogy. Further referring to Knowles's theory, Thompson and Deis (2004) suggested that higher education faculties be required to use andragogy to teach adults. However, many postsecondary institutions and academic programs do not use the andragogical principles that are needed in adult learning.

In the changing face of today's higher education, a growing population of mature adults has emerged as the higher education student. Andragogy is relevant in higher education because the average postsecondary student is an adult learner. Patterns of learning that emanate in association with higher education students involve learning style and instructional style. Instead

of an instructional paradigm, faculty must use the learning paradigm in higher education settings. Additionally, in order to attend to the learning patterns of postsecondary students, faculty must become facilitators of learning since the facilitated learning strategy is associated with andragogical principles (Henschke, 2011).

Adult learning and knowledge. Knowledge is regarded as a vital resource that stimulates advancement in today's society and human beings are the main producers of that knowledge (Kessels, 2001, 2004). The capacity of individuals and organizations derives from knowledge they have, how competently they utilize what knowledge they have, and how rapidly they learn new knowledge and apply it. Innovation is then fostered through collective learning among people when they partner together and share knowledge amongst each another. Notwithstanding, valuable knowledge often resides in the thoughts of individuals who do not feel willing to share their personal knowledge. The integration of knowledge sharing requires a cultural shift from working individually and hoarding knowledge to a more collaborative manner of performing. However, many organizations perceive knowledge in relation to knowledge sharing, often with the least attention given to the culture and individuals that provide the framework for information, albeit knowledge is about people and not technological devices (Dalkir, 2005).

Electronic tools are unable to modify people's knowledge sharing behavior or create an interest for knowledge sharing, rather the appeal is to use the technology to connect individuals together in order for them to get the knowledge they need (Dalkir, 2005). Further, Dalkir (2005) argues that technology cannot replace human-to-human interactions, which plays a relevant part in facilitating processes for sharing knowledge. Zelenkova and Spisiakova (2011) state that although it is essential to improve accessibility and availability to information and knowledge via

technological tools, it is also critical to encourage knowledge sharing by increased interaction and mutual learning that allows for peer-to-peer contact, learning circle groups, community-of-practice groups, and networking activities. Combining these activities can help to produce the type of culture where people are galvanized to work together and share their knowledge with one another, and that in which knowledge sharing would be the standard instead of the exception.

Organizations that channel the advantages of collaboration can effectually use knowledge as a means to being more productive (Gurteen, 1999). When there is a perceived culture of trust and individuals feel that they are respected by their peers and colleagues, then knowledge tends to flow and thereby, knowledge sharing is profoundly augmented. Since culture influences communication between people, then a culture of trust can be viewed as a powerful one for knowledge sharing. This perceived culture of trust then evolves towards the concept that the sharing of knowledge is even more powerful where the collaboration favorably impacts the efficacy of the knowledge sharing process (Dalkir, 2005).

According to Klimecki and Lassleben (1998), individuals construct knowledge only by interacting with others. An individual's educational background, skills and experience are not sufficient enough to engender trust to cause knowledge sharing. Therefore, there is a need for the authentic personal networks and relationships that tend to influence individuals to enact knowledge sharing behaviors. The primary producers of this network of relationships, sometimes referred to as social capital, are knowledge sharing communities (Dalkir, 2005).

This qualitative research study seeks to understand perceptions of knowledge sharing among graduate students in a hybrid learning environment. Hybrid learning environments allow for elements of andragogy, such as autonomy and self-direction, which help to facilitate adult learning. The learning process becomes meaningful for adult learners when it takes into account

their needs for relevancy, autonomy, and self-directedness. Hybrid learning environments also promote higher level thinking in adult learners and permit greater opportunity to construct learning by incorporating knowledge and relevant life experiences (M. Knowles, 1996).

Historical Background/Context: Hybrid Learning Environments

In alignment with Knowles's theory of andragogy and consistent with adult learning approaches in that it helps to increase student involvement with learning, hybrid learning blends in-person lectures with online course discussions (Hollis & Madill, 2006). Research describes hybrid learning as a "harmonious balance between online access to knowledge and face-to-face human interaction" (Rovai & Jordan, 2004, p. 24). Higher education is realizing the merits of hybrid courses and view them as proffering the advantages of both in-person and virtual instructional domains (Rovai & Jordan, 2004). Although researchers have begun to pay attention to hybrid courses, there is still a gap in existing research that seeks to understand the adult student's perceptions of knowledge sharing behaviors within hybrid learning environments in higher education.

Poindexter and Basu (2000) found that hybrid learning environments represent a significant educational paradigm shift. Be that as it may, an assortment of definitions to explain hybrid learning exists. Hybrid learning environments involve two modes of learning: learning situated in an educational environment that is based on specifically planned, formal educational activities; and learning situated in an environment that is mostly informal in nature (Tynjälä et al., 2003) and self-directed (Knowles, 1975). Hybrid learning environments can be considered a mix of in-person and online instructional environments. Hybrid learning environments build upon the strengths of the in-person classroom while providing the flexibility of digital learning. In addition to the conventional and digital settings, hybrid learning environments also include the

sociocultural context (Goodyear, 2008). According to Sands (2002), successful hybridity in learning environments depends on connecting the human-to-human component of hybrid courses with the online component so that they work in alignment with one another. In addition, hybrid learning environments incorporate a multitude of instructional approaches, resources, ingredients, and experiences (Carmen, 2002). In example, the hybrid model provides learners with the flexibility to meet their demanding schedules while participating in higher education learning activities (J. Young, 2002).

Various terms are used interchangeably with regard to hybrid learning, such as computer-supported cooperative learning (Johnson & Johnson, 1999) and blended learning (Carmen, 2002; Story & Dielsi, 2003; Wonacott, 2002). However, *hybrid* is the term frequently used to describe courses that are a combination of face-to-face classroom instruction and computer-based learning (Picciano, Dziuban, & Graham, 2013). Although the definitions for hybrid learning seem to deepen over time (Singh, 2003), there is still a lack of a universal definition for hybrid learning environments.

Amid the variances in meaning for hybrid learning environments, they are lauded as "the single greatest unrecognized trend in higher education today" (J. Young, 2002, p. 3). Many educational researchers and scholars, including Dede (1996) and Spilka (2002), have pointed out that hybrid learning environments provide a multimodal learning experience that helps individualize learning and allows for different types of learners. For example, Spilka suggested that "students who rarely take part in classroom discussions are more likely to participate online, where they get time to think before they type and aren't put on the spot" (p. 2). Hybrid learning "presents material in a range of formats that can help ensure every student is fully engaged in at least some class activities" (p. 2).

Further, the online component of hybrid courses can increase learner outcomes when used as an opportunity to expand and extend the face-to-face classroom discussion (Spilka, 2002). In addition, "most faculty believe that their students learned more in the hybrid format than they did in the traditional class sections" and that the hybrid format "allowed them to accomplish course learning objectives more successfully than traditional courses do" (p. 2). Finally, Spilka (2002) asserted that hybrid learning environments have a great potential for situated, authentic learning. There is a growing importance of situated learning in relation to learner motivation, interaction, and learning outcomes. In the usual manner that it occurs, learning is embedded within the culture and the context of the activity to reflect the way the knowledge will be used in real-life (Lave & Wenger, 1991; Wenger, 1999). Recent literature about learning environments has shown that situated, authentic learning is a vital component of all types of learning environments (Anderson, Reder, & Simon, 1996; J. Brown, Collins, & Duguid, 1989; Lave & Wenger, 1991; B. Wilson & Myers, 1999).

The hybrid learning environment appears to be ideal in making higher education accessible to adults who have dilemmas with attending class in the same manner as traditional students but who also do not want to sacrifice the quality of learning (Hall & Dudley, 2006; Murphy & Stanton, 2004). Researchers indicate that hybrid courses are especially appropriate for learners who require the advantages of an alternative format as well as that of a conventional classroom setting (Levine & Wake, 2000). Some of the advantages of a hybrid learning model include the convenience of reduced time required to be physically present in a classroom, availability of an online collaborative environment, opportunity to receive traditional feedback in face-to-face instructional delivery, and flexibility of scheduling (Kym, 2005). Although the

hybrid mode of teaching is still relatively new, some research does exist to help understand its effectiveness and efficiency.

Existing research provides general evidence of positive perceptions of hybrid courses from instructors and students (Garnham & Kaleta, 2002; Koch, 1998; Kym, 2005; Vaughan, 2004). For instance, Vaughan's (2004) study found that hybrid courses potentially promote inquiry among learners. In another study, Kym (2005) concluded that students reported some satisfaction and sense of accomplishment in hybrid courses, although the conclusiveness of the finding was weakened by both the variation in student responses across disciplines and by the aggregation of multiple surveys from the same students. In a similar study, Johnson (2002) found that a hybrid format increased the accessibility of course content to students and the connection between students and instructor, but there was no substantial variation in course effectiveness between the hybrid and traditional formats. However, since hybrid learning environments are often compared to either face-to-face or virtual learning environments instead of being examined within their own uniqueness, there is limited research that examines the phenomenon of knowledge sharing within hybrid learning environments.

Variable 1: Knowledge Sharing

Knowledge sharing is often identified as a process which includes knowledge formation, acquisition of knowledge, codifying and making sense of knowledge, sharing of knowledge, and applied use of knowledge (Alavi & Leidner, 2001; Davenport & Prusak, 1998; Liebowitz & Megbolugbe, 2003; Scarborough & Swan, 1999). Individuals share knowledge with others to provide information and expertise in order to collaboratively problem solve, create innovative concepts and ideas, or implement procedures and policies (Wang & Noe, 2010). In addition, knowledge sharing is considered an activity that specifically constitutes the diffusion of

knowledge (Birkinshaw & Sheehan, 2002), although research studies and discussions have not explicitly defined knowledge sharing (Augier, Shariq, & Thanning Vendelø, 2001; Bock & Kim, 2002; Buckman, 1998; Chow, Deng, & Ho, 2000; Fraser, Marcella, & Middleton, 2000; McDermott & O'Dell, 2001; Pan & Scarborough, 1998; Stoddart, 2001; Wasko & Faraj, 2000).

The term knowledge sharing has also been referred to as *knowledge transfer* or *knowledge flow*, although some scholars contend that the terms are not interchangeable. For example, Alavi and Leidner (2001) do not differentiate between the terms knowledge transfer and knowledge sharing. Alavi and Leidner defined knowledge transfer, or knowledge sharing, as a way in which knowledge spreads across an organization or between individuals or groups. "Within the frame of reference both 'knowledge sharing' and 'knowledge transfer' are used and discussed interchangeably. As it is not clear if there is a difference, both terms will be used" (Jonsson, 2008, p. 39). Similarly, the term knowledge flow has not been explicitly distinguished from knowledge sharing (Bontis, Dragonetti, Jacobsen, & Roos; 1999; Gupta & Govindarajan, 1991, 2000).

Conversely, Davenport and Prusak (1998) stated that knowledge transfer represents the flow of knowledge from organization to organization, while knowledge sharing indicates the flow of knowledge within the organization or among people. This research study uses the term *knowledge sharing*, albeit knowledge transfer and knowledge flow are reviewed and discussed to the extent that they inform knowledge sharing between individuals. The focus in this research study is more on the individual process of knowledge sharing as opposed to aggregate knowledge sharing within an organization.

Despite the inadequacy of clear explanations of what knowledge sharing is in research studies, some scholars do proceed to illustrate and define knowledge sharing. For example,

Wasko and Faraj (2000) state, “Individual learning and new knowledge creation occur when people combine and exchange their personal knowledge with others...there is a growing awareness of the importance of creating a systematic approach to knowledge sharing and the generation of knowledge flow” (p.156). In this context, knowledge sharing is communication, is associated with the way knowledge flows within a group or organization, and supports construction of new knowledge (Buckman, 1998). Though this is an expansive description of knowledge sharing, it demonstrates that communication is an integral part of knowledge sharing whether it is person-to-person or electronic. Fraser et al. (2000) also implied that knowledge sharing requires communication channels.

The dissemination of knowledge can take place through various types of channels: formal, informal, impersonal, or personal (Alavi & Leidner, 2001; Holtham & Courtney, 1998). This detailing of knowledge sharing, or knowledge transfer, highlights a few main points. One main point is that knowledge sharing involves an informer, a recipient, and a communication channel. The informer and recipient can be either an organization, group, or individual person. According to Connelly & Kelloway (2003) and J. Lee (2001), knowledge sharing includes activities involving the diffusion of knowledge from one person or group to another. Learner engagement in meaningful, authentic activities stimulates the occurrence of knowledge sharing (Petraglia, 1998). Connelly and Kelloway further stated that knowledge sharing is a collection of behaviors that incorporates exchanging knowledge and information. In these definitions of knowledge sharing, Connelly and Kelloway distinguish the sharing of knowledge from the sharing of information stating that information sharing involves an organization’s sharing of information to inform employees and that knowledge sharing involves a component of *reciprocity*, or mutual dependence.

Connelly and Kelloway's (2003) detail of knowledge sharing connotes that an exchange or reciprocity occurs during the process of knowledge sharing. Whereas the literature suggests that individuals share their knowledge due to the potential innate rewards or expected reciprocation, it is not a requirement that the recipient also share knowledge at that particular moment and the recipient may not share in the future either. Therefore, for this research study, the definition of knowledge sharing does not require explicit or immediate reciprocity. Additionally, the aim of this investigation is the perception of knowledge sharing from individual persons, rather than a group or organization, and consequently, the definition of knowledge sharing for this study is narrower than definitions examined from the literature in this section.

The literature provides a sense of what knowledge sharing is and reveals factors associated with the intention or desire to willingly share knowledge and the actual sharing of knowledge (Bock & Kim, 2002; Chow et al., 2000; Connelly & Kelloway, 2003; Constant, Kiesler, & Sproull, 1994; Fraser et al., 2000; Gupta & Govindarajan, 2000; Ingram & Simons, 2002; McDermott & O'Dell, 2001; Pan & Scarborough, 1998; Stoddart, 2001; Szulanski & Cappetta, 2000; Wasko & Faraj, 2005). The intention to share knowledge is a potentially sound predictor of actual behavior; however, intention is not considered to be behavior (Fishbein & Ajzen, 1974). To identify attitudes about knowledge sharing, Bock and Kim (2002) conducted research which sought to understand why people contribute the knowledge that they do share and to find out whether differences existed between intent to share knowledge and actual sharing of knowledge. Bock and Kim (2002) argued that one's intent to share knowledge would be positively associated with one's actual sharing of knowledge. Conceptualizing knowledge sharing is a challenging endeavor (Boer, 2005). A suggested way of approaching such an

endeavor is by engaging in discussion of the root definitions of knowledge sharing (Sharratt & Usoro, 2003).

Knowledge. Knowledge is defined as "justified true belief" (Nonaka & Takeuchi, 1995, p. 58) that enhances an entity's potential for effective action (Alavi & Leidner, 2001). Various scholars differentiate between types of knowledge when discussing knowledge sharing. Some researchers have distinguished knowledge as either *tacit knowledge* or *explicit knowledge* (Nonaka, 1994; Wensley, 2000). Nonaka (1994) drew upon the work of Polanyi (1958, 1962) to describe these two types of knowledge. Tacit knowledge is knowledge that is presumed without being stated, whereas explicit knowledge that which is stated (Wensley, 2000). Keane and Mason (2006) argue that using the explicit-tacit dichotomy as representing the types of knowledge misinterprets of the work of Polanyi (1958, 1962); and further, that Polanyi's definition of tacitness and explicitness does not imply *types* of knowledge, but instead *dimensions* of knowledge.

Tacit knowledge is described by Nonaka and Takeuchi (1995) as personal, developed from action and experience, not easy to codify or communicate, not easily visible and expressible. Alavi and Leidner (2001) described tacit knowledge similarly, stating that it is grounded in action, experience, and engagement within a particular context. In contrast, explicit knowledge can be readily conveyed in words and procedures, manuals, scientific equations or universal principles (Nonaka & Takeuchi, 1995). Further, Alavi and Leidner (2001) asserted that explicit knowledge can be articulated in symbolic form or in natural language. Tacit knowledge and explicit knowledge, as presented by Nonaka (1994) and Nonaka and Takeuchi, are dependent upon each other and are supporting characteristics of knowledge rather than dual conditions of knowledge.

Skyrme (2011) contended that the vast majority of knowledge can be described as tacit and difficult to codify. However, Biggam (2001) argues that the tacit-explicit knowledge dichotomy displays knowledge as either being stated or unstated but does not provide insight as to what constitutes knowledge. Kogut and Zander (1993) believe that knowledge is not strictly divided between the explicit-tacit dichotomy, but rather maneuvers along the spectrum of tacitness and explicitness, therefore making it difficult for one to differentiate between the two.

Other scholars have described the types of knowledge as *hard knowledge* and so*ft knowledge* (Hildreth, Kimble, & Wright, 2000). "Hard knowledge is knowledge that can be easily articulated and captured. Soft knowledge, on the other hand, is not so easily articulated and cannot be so readily captured" (p. 28). Another way that knowledge has been distinguished in a study involving two communities of practice is *book knowledge*, *practical knowledge*, and *cultural knowledge*. Book knowledge consists of facts whereas practical knowledge involves the in-practice utilization of book knowledge (Hara, 2000). Cultural knowledge deals with an individual's attitude towards a practice, as well as an individual's professional obligations while in practice (Hara, 2000).

This research study will distinguish knowledge based on Hara's (2000) concept of three types of knowledge—book knowledge, practical knowledge, and cultural knowledge—rather than the tacit-explicit knowledge dichotomy. This is because the tacit-explicit knowledge dichotomy does not extend a clear understanding of what knowledge constitutes, but instead only points out that knowledge can be stated or unstated (Biggam, 2001). Keane and Mason (2006) suggested that, in alignment with Polanyi's definition, tacit knowledge is a dimension of not a type but rather a dimension of knowledge. They asserted that "all knowledge is composed of both tacit and explicit dimensions, not types" (p. 1). The hard-soft knowledge dichotomy will not

be used in this research study because it is akin to the tacit-explicit dichotomy, with hard knowledge corresponding to explicit knowledge and soft knowledge corresponding to tacit knowledge.

Another research perspective conjectures that knowledge must be put in a format that allows for its exchange and circulation and that the main transformation of knowledge is from knowledge to information, also known as the codification of knowledge (Ancori, Bureth, & Cohendet, 2000). Additional research posits that knowledge evolves from information, then information evolves from data (Davenport & Prusak, 1998). Consequently, the literature is replete with explorations of differences between knowledge, information, and data. A general point of view is that data consists of facts and raw numbers, while information is interpreted data, and knowledge is justified, authentic information (Dretske, 1981; Machlup, 1980; Vance, 1997).

In contrast, some researchers contend that the spectrum goes in the opposite direction, and knowledge comes before information and data. For example, Tuomi (1999) asserted that knowledge must be present prior to information being devised and prior to data being measured to form information. Further, some scholars have proposed that information is transformed to knowledge once an individual has processed it in his/her own mind, and then the knowledge converts to information after it is communicated and demonstrated through words, graphics, or other symbols (Alavi & Leidner, 2001).

Another distinction in the literature to differentiate between information and knowledge is that information turns into knowledge when a person comprehends, interprets, and specifically applies the information (Marshall, 1997). Alternatively, Nonaka (1994) proclaimed that "in short, information is a flow of messages, while knowledge is created and organized by the very

flow of information, anchored on the commitment and beliefs of its holder" (p. 15). Nonetheless, what is critical to adequately differentiating between information and knowledge is still not clear (Alavi & Leidner, 2001).

Other researchers assume that information is changed into knowledge when it is interpreted in an individual's mind (Alavi & Leider, 2001). Similarly echoed by Tuomi (1999) is his suggestion that information becomes knowledge when it is interpreted or when meaning is affixed to it and, therefore, information that is interpreted becomes knowledge. Some researchers believe that the process of interpretation is subjective and that knowledge itself is highly contextualized, thus making it difficult to share with others (Schwen, Kalman, Hara, & Kisling, 1998; Van Beveren, 2002). The literature generates inquiry as to whether knowledge sharing is feasible if knowledge is indeed highly contextualized.

Contrastingly, some researchers have asserted that there is a strong association between information and knowledge (Detlor, 2001, 2002). For instance, Schultze (2000) described the close relationship between information and knowledge as being mutually indispensable. Researchers argued that it is quite difficult to separate information and knowledge categorically in practice (Schulz, 2003; Tuomi, 1999, 2000). Included within their broader concept of knowledge as part of their efforts to shed more light on how knowledge is shared between knowledge providers and knowledge receivers, Wikstrom and Normann (1994) posited that a close association exists between information and knowledge. This discussion leads to an understanding of the definition of sharing.

Sharing. According to Sharratt and Usoro (2003), sharing is an activity where the source gives a resource and that resource is received by the recipient. Some authors refer to sharing as *donating* (Van den Hooff & De Leeuw van Weenen, 2004) or as *contributing* (McLure Wasko &

Faraj, 2005; Ye, Chen, & Jin, 2006), implying the existence of a liaison between the sender and the receiver. Hendriks (1999) also stated that knowledge sharing makes the assumption that a relationship is evident between at least two entities, with one possessing knowledge and another one acquiring knowledge. Hendriks framed the context of knowledge sharing as that which requires knowledge to share knowledge and which also requires reconstruction of the knowledge as it is shared. Hislop (2004) asserted that common knowledge and practice enables knowledge sharing processes that are likely to produce "trust-based relations, creating social conditions that are conducive to knowledge sharing" (p. 36).

The literature suggests that an effective mechanism for knowledge sharing is conversations, which can occur electronically (Orr, 1996; Sharratt & Usoro, 2003; Zeldin, 1998). For example, Sharratt and Usoro (2003) stated that conversation is framed by a special mutuality that is created among people and, by way of this mutual context, the sharing of knowledge is enabled.

> Conversation is a meeting of minds with different memories and habits. When minds meet, they don't just exchange facts . . . they transform them, reshape them, draw different implications from them, engage in new trains of thought. Conversation doesn't just reshuffle the cards: it creates new cards. (Zeldin, 1998, p. 14)

Specifically, within the environment of online communities, the most express way to engage a person who may hold the knowledge that another member seeks is to post a straightforward inquiry or post a request for assistance to the virtual community. Lichtenstein and Hunter (2005) argued that the key reason that a knowledge provider shares knowledge is the knowledge provider's perception of a receiver's need for knowledge which is signaled by the intended receiver.

The literature indicates that a knowledge provider and a knowledge receiver are involved in knowledge sharing (Lichtenstein & Hunter, 2005). A knowledge provider refers to an individual who provides or shares his/her knowledge with others, whereas a knowledge receiver refers to the one who receives or acquires the knowledge from another person. Other scholars use comparable language to describe these two concepts. For example, Wasko and Faraj (2005) utilized the wording knowledge contributor and knowledge seeker. Hew and Hara (2007) incorporated the phrases knowledge provider or knowledge sharer and knowledge seeker. Peddibhotla and Subramani (2007) employed the terminology knowledge contributor and knowledge user. Chiu, Hsu, and Wang (2006) used the phrasing knowledge contributor and knowledge receiver.

In addition to the knowledge provider and knowledge receiver, there is a communication channel through which knowledge is transmitted from the knowledge provider to the knowledge receiver. Some scholars refer to this concept as a transmission channel (Gupta & Govindarajan, 2000). Other researchers call this dynamic a transfer mechanism (Alavi & Leidner, 2001). In virtual communities, the communication medium may be an online bulletin board system or an online chat room. Research illustrates the knowledge sharing process in which a knowledge provider, knowledge recipient, and communication medium are involved.

Knowledge sharing in virtual communities. The process of sharing knowledge in digital environments is characterized as consisting of two stages conceptually based on prior research studies and adapted to the context of online communities (Alavi & Leidner, 2001; Gupta & Govindarajan, 2000). In the first stage, the knowledge provider shares his or her knowledge by posting information on a communication medium, such as an online bulletin board system. In this stage, the knowledge that is embedded in the mind of an individual is converted

to information. For example, what is posted on the online bulletin board system is information and what is provided by the knowledge provider is knowledge because it is something that is embedded in the mind of the individual before it is converted to information (Huber, 1991; Nonaka, 1994). When an individual answers another person's question based on his/her own experience and accumulated knowledge, the answer provided is a justified true belief since the individual provides an answer that he or she believes to be accurate. Therefore, that which the individual actually shares is thought to be knowledge, although that which is posted on the communication medium (the online bulletin board system) is considered to be information (Alavi & Leidner, 2001; Gupta & Govindarajan, 2000; Huber, 1991; Nonaka, 1994).

In the second stage as described by Alavi and Leidner (2001) and Gupta and Govindarajan (2000), the knowledge receiver reads the information posted on the online bulletin board system (the communication medium), and then creates his/her own knowledge. In this stage, information is converted to knowledge that resides within the mind of the individual. What resides in the mind of a knowledge provider and a knowledge receiver is knowledge, while what is posted on a communication medium, such as an online bulletin board system, is information. Thus, the literature leads to further inquiry as to whether the process should be referred to as knowledge sharing or information sharing in virtual communities.

As mentioned earlier, the knowledge provider, the knowledge receiver, and the communication medium are involved in this process. Within the communication medium (the online bulletin board system), this process might be called information sharing, since that which is posted and stored in the online bulletin board system is considered to be information (Alavi & Leidner, 2001; Gupta & Govindarajan, 2000). However, from the outlook of the knowledge provider, that which the individual provides is considered knowledge since it is that which

emerged from the cache of the individual's mind, perceived by the individual to be accurate, and acknowledged as a justified true belief (Bieber et al., 2002). Therefore, this process is knowledge sharing from the knowledge provider's perspective.

This perspective is also consistent with the notion of knowledge embedded in physical systems, such as databases (Holsapple & Joshi, 2004; Leonard-Barton, 1995). For example, the information input and stored in electronic knowledge repositories is regarded as knowledge (Kankanhalli, Tan, & Wei, 2005). According to this viewpoint, the sharing process discussed in this section can also be called knowledge sharing, even from the view of the communication medium. Similarly, recent studies have used the phrase knowledge sharing to describe this process (Chiu et al., 2006; Hew & Hara, 2007; M. Lee, Cheung, Lim, & Ling Sia, 2006; Ma & Agarwal, 2007; Wasko & Faraj, 2005). Since this research study is focused on the perceptions of knowledge sharing within hybrid learning environments, it is more appropriate to call this process knowledge sharing rather than information sharing.

In today's global knowledge society of the 21st century, awareness of the need to harness knowledge is increased. Recent study topics are emerging around the concept of leveraging knowledge. Knowledge sharing has become a major initiative, particularly by organizations looking for ways to foster success (Davenport & Prusak, 1998; Garvin, 1997; Hall & Widen-Wulff, 2008; Hansen, Nohria, & Tierney, 1999). Many research investigations have focused on how to achieve effective knowledge sharing within organizations and businesses (Ba, Stallaert, & Whinston, 2001; Hall & Widen-Wulff, 2008). Correspondingly, most research studies that concentrate on motivators of knowledge sharing are anchored in the context of organizational institutions.

Variable 2: Knowledge Sharing Motivators

A motivator may be considered as a factor that energizes and directs behavior (Elliot & Covington, 2001). In this research study, *knowledge sharing motivators* will be defined as determinants which encourage and increase an individual's intended behavior to share their knowledge. Empirical studies show that motivators for knowledge sharing in virtual communities can be classified into several main categories: *egoism*, *altruism*, *collectivism*, *principlism*, *technology*, and *external goals*. Egoism refers to self-based considerations or personal gain (i.e., the need to enhance one's own reputation for possible future monetary rewards or direct compensation or to enhance one's own knowledge in order to make one's job easier (Ardichvili, Page, & Wentling, 2003; Beenen et al., 2004; Constant, Sproull, & Kiesler, 1996; Gray, 2004; Hars & Ou, 2002; Hendriks, 1999; Sangwan, 2005; Sawyer, Eschenfelder, & Heckman, 2000; Wasko & Faraj, 2000). Altruism involves enjoyment derived from sharing with others (Brazelton & Gorry, 2003; Constant et al., 1996; Hars & Ou, 2002; Wasko & Faraj, 2000). Collectivism refers to advancing the community or profession, such as by setting and communicating standards throughout the community or profession (Wasko & Faraj, 2000). Principlism involves the idea of moral obligation and reciprocation (Ardichvili et al., 2003; Gray, 2004; Hendriks, 1999; Jarvenpaa & Staples, 2000; Teigland & Wasko, 2004; van den Hooff & de Leeuw van Weenen, 2004; Wasko & Faraj, 2000). Technology involves ease of use with tools (Gray, 2004; Jarvenpaa & Staples, 2000; Teigland & Wasko, 2004). External goal means meeting specific goals (Beenen et al., 2004).

However, other scholars discuss only four categories of motives: egoism, altruism, collectivism, and principlism. As reported by Batson (1994) and Batson, Ahmad, and Tsang (2002), egoism means increasing one's own welfare such as pay, recognition, or praise, whereas

altruism refers to increasing other individuals' welfare and involves empathy, compassion, and sympathy. Directly focused on the common good is collectivism, which involves increasing the welfare of a collective group, while principlism refers to upholding moral principle, justice, or equal rights.

In previous research, an explanation offered as to one reason why people share their knowledge in a digital environment was egoistic motive. In a study about virtual communities of practice focusing on the employees of a Fortune 100 global company, for example, Ardichvili et al. (2003) found that individuals felt as though they needed to establish themselves as an authority by making multiple contributions to the community of practice. Similarly, Wasko and Faraj (2000) found in their examination of technical newsgroups that some individuals donate knowledge to a virtual community to gain some type of status or other benefit related to their professional work.

According to Batson et al. (2002), altruism is the motive that boosts the benefit of one or more individuals greater than for oneself. Batson et al. further explained that the generally proposed source of the altruism motive is empathy, which can be detailed as emotions and feelings that are in accordance with the perceived wellbeing of another individual. Empathetic emotions and feelings of benevolence and compassion enhance the desire to support the needs of the individual for whom the empathy is for (Batson, 1991). Empirical evidence suggests that altruism can promote the contribution of knowledge by individuals in virtual communities (Brazelton & Gorry, 2003; Hars & Ou, 2002).

Another motive named collectivism seeks to boost the benefit of a group (Batson, 1994; Batson et al., 2002). People commonly behave out of collectivist motives due to their commitment to the value and welfare of the group and frequently such dedication to the group's

collective wellbeing is promoted by joining as a group member (Batson et al., 2002). McMillan and Chavis (1986) posited that membership has a certain attribute, including a sense of belonging that identifies who is part of the community and who is not. Previous research has confirmed that collectivism can in fact explain why people contribute their knowledge in virtual communities. For instance, Yoo, Suh, and Lee (2002) found that a sense of belonging to the community had a positive impact on members' participation across all eight different online communities studied. Particularly, the idea of membership within the community had an influence on participation in that people are amenable to contributing their knowledge to the community for the simple reason that they are members of the community. Additionally, individuals feel motivated to share knowledge since they desire to promote the entire community and believe that the group could eventually benefit from and be enhanced by the shared knowledge (Wasko & Faraj, 2000).

Principlism is a motive that seeks to uphold ethical principles and standards (Batson, 1994; Batson et al, 2002). As an example, people who have previously received support from a community believe they are compelled to donate knowledge they have because they themselves had received help (Cheung, Shek, & Sia, 2004). The literature frequently refers to this principle as reciprocity. Empirical studies demonstrate that reciprocity tends to motivate people to share their knowledge. There are two possible types of reciprocity: direct and indirect (Sigmund, Nowak, & Dieckmann, 2000). In direct reciprocity, two individuals associate to the extent that they assume the roles of receiver and giver (or donor). In indirect reciprocity, third parties give without expecting any return from the receiver. Hall (2001a) elaborated on the description of third-party donors, "Third-party donors, while not anticipating immediate 'compensation' for favors granted, tend to anticipate repayment at a later date, in the form of a favor from another

third party" (p. 143). Indirect reciprocity has also been referred to as generalized reciprocity. Ekeh (1974) described generalized reciprocity as support provided to an individual that is reciprocated by another individual who is not the support recipient.

In an investigation of an electronic network to uncover the reasons that individuals desired to aid others, Teigland and Wasko (2004) discovered that people felt compelled to assist other people so that it would allow for them to also receive support as needed from the group. Wasko and Faraj (2000) noted that some of the members in virtual communities of practice were willing to assist others based on their belief in the appropriateness of helping others if they too had received assistance from community members. Wasko and Faraj further suggested, based on remarks from members, that individuals do not necessarily expect to receive support from the same person, and that the help may actually come from someone else. As such, the type of reciprocity in the aforesaid situation reflects an example of generalized reciprocity. A more recent study by Van den Hooff and De Leeuw van Weenen (2004) also noted that the extent to which individuals gather or receive knowledge from other people favorably impacts the degree to which they also contribute or share knowledge.

Although some scholars generally recognize reciprocity as a motivator for people to share knowledge, other scholars disagree. A study by Constant et al. (1996) of geographically dispersed employees of a Fortune 500 computer manufacturer explored the process by which the workers gave and received technical advice across the organizational computer network. Researchers found little evidence that the knowledge providers' own history of receiving help over the network explained the reasons for them giving help.

One way that technology as a motivator can be explained is by using the model of technology acceptance. The technology acceptance model is considered because members of

online communities rely on technological communication such as email when they do not see one another face-to-face. The technology acceptance model states that the selected mode of technology needs to first be accepted by the members for use. Without user acceptance of a particular communication technology tool, it is difficult for any individual to share his/her knowledge online. In a field study of 112 users, it was found that a perceived ease of use had a considerable effect on people's attitudes toward using a technology (Davis, 1993). Perceived ease of use is described as "the degree to which an individual believes that using a particular system would be free of physical and mental effort" (p. 477). To elaborate on how perceived ease of use can influence knowledge sharing, researchers have indicated that sharing should be increased when the psychological costs of sharing are decreased by the attributes and conditions of the technology itself and the technology provides a user-friendly system (Constant et al., 1994; Jarvenpaa & Staples, 2000). "Whether it is easy, or not, to share knowledge depends on the method by which potential knowledge contributors contribute" (Hall, 2001b, p. 18).

A review of past empirical studies illustrates the perceived ease of use of technology as a knowledge sharing motivator. For example, Teigland and Wasko (2004) found through interviewing the company head of a management consulting services corporation that knowledge sharing and high participation of their staff in an online network was due to the use of a technology tool called a listserv. The listserv allowed people to receive automatic posts to their email inbox, instead of needing to remember to enter the discussion forum. In another study that examined an online community in Canada, Gray (2004) stated that one of the reasons hindering participation in a community was due to people having to go to the community website instead of receiving emails, which made it easier for them to procrastinate making a contribution. The easier the use of technology is for individuals and the less effort that is needed, then the more

likely the possibility that individuals will use technology to share their knowledge.

In addition to perceived ease of use as a motivator, another common feature of technological communication that may encourage knowledge sharing is anonymity (Kiesler, 1986). Although many computer-mediated tools including email and discussion forums are text-based and lack nonverbal cues, and that by not having these verbal tools a sender is precluded from altering the tone of a message, such technological tools lead to an increased feeling of anonymity. When communication is more anonymous and lacks dynamic personal information that can be gained through nonverbal cues, people tend to direct their attention less to each other and more to the message. The sense of anonymity was originally expected to cause less social communication and limited identification than when interactions occur within in-person settings, potentially resulting in decreased knowledge sharing in online contexts (Van den Hooff & De Leeuw van Weenen, 2004).

Contradictions to this original notion that anonymity causes less communication and less sharing surfaced in empirical results (Postmes, Spears, Sakhel, & de Groot, 2001; Walther, 1992). To explain, Postmes et al. (2001) introduced the social identification model of deindividuation effects which posits, visual anonymity can actually strengthen the saliency of the group and group identification when a social identity is already prominent and people describe themselves as group members rather than individuals. Therefore, when the relevant attributes of the group are known, anonymity can emphasize the unity of the group and cause people to be perceived as group members instead of as individuals (Tanis & Postmes, 2003).

Similarly, other scholars have argued that computer-mediated communication precipitates personal interactions. Communications of this nature result in richer, deeper social relationships than those demonstrated in a human-to-human context, which can lead to stronger

group identification and more collective group behavior (Van den Hooff & De Leeuw van Weenen, 2004; Walther, 1992). Van den Hooff and De Leeuw van Weenen (2004) found that use of computer-mediated communication resulted in a positive influence on collective commitment to a group and in turn, operated as an antecedent to knowledge sharing. For example, in their study of the relationship between organizational commitment, computer-mediated communication use, and knowledge sharing, Van den Hooff and De Leeuw van Weenen (2004) discovered support for the notion that computer-mediated communication is precursory to knowledge sharing and that it can, along with a strong commitment or identity to a group, motivate knowledge sharing behavior.

The theory of goal-setting as a motivator explains that when people share their knowledge within an online community they do so as an external goal, including specific fulfilling goals. A study led by Beenen et al. (2004) explored reasons why motivated people contribute knowledge in an online community, in which members rate movies, write reviews for movies, and obtain movie recommendations. Beenen et al. believed that specific goals, particularly those that are challenging, can stimulate knowledge contribution. A variable in the study, specificity of goals, was manipulated based on conditions of either a *do your best* non-specific goal or a specific goal to reach a certain number or amount. The most significant outcome from the study was that when people were given specific goals in lieu of the non-specific goals, they contributed more. These findings align with the goal-setting theory which stipulates that goals should be specific, immediate, and relatively challenging instead of long-term and non-specific in order to stimulate high performance (Locke & Latham, 2002). According to Beenen et al., the theory of goal-setting proposes for virtual communities that specific, immediate, and challenging goals be set for their members in the interest of motivating

them to contribute and share their knowledge.

Variable 3: Knowledge Sharing Barriers

Barriers to knowledge sharing in online communities can be viewed as factors that curtail motivation (Dornyei, 2001; Falout & Maruyama, 2004). In this research study, *knowledge sharing barriers* can be described as conditions that diminish or decrease the behavioral intention of an individual to donate or share knowledge. Past empirical studies demonstrate that a number of barriers can impede individuals from sharing their knowledge within online communities. These barriers to knowledge sharing are grouped into six broad categories. The first category is *technology*, which includes unfamiliarity with technology, lack of access to technology, and difficulty using technology (Gray, 2004). Gray (2004) described the second barrier as *unfamiliarity with a subject*, which Ardichvili et al. (2003) similarly identified as a lack of knowledge about a subject. Wasko and Faraj (2000) identified *competing priorities* as the third barrier. Nonnecke and Preece (2001) and Sawyer et al. (2000) defined this barrier as lack of time. An *absence of feeling affiliated with the community* is the fourth barrier (Gray, 2004). The fifth barrier is *personal attitude* (arrogance, ego, or believing that others should help themselves first (Ardichvili et al., 2003; Wasko & Faraj, 2000). Finally, the sixth barrier is people *wanting to remain anonymous* to maintain confidentiality and privacy or to hoard their knowledge (Nonnecke & Preece, 2001).

An identified barrier to knowledge sharing in virtual communities is related to the communication technology itself (Gray, 2004). After interviewing some non-contributing individuals, Gray (2004) found that there were reasons related to technology that attributed their lack of sharing knowledge. The first technology-related reason for not contributing was a limited understanding with using online technologies and an overall absence of comprehending how

virtual communication operates. The next technology-related reason for not sharing knowledge was limited technological access, including working with older, undependable computers or having slow internet access. Another reason that diminished their contributions was that the technology was considered difficult to use, such as having to go to the community website and having to remember to log in regularly.

Another common barrier to virtual sharing of knowledge is related to an individual's unfamiliarity with the subject being discussed. If an individual does not feel sufficient in his/her level of proficiency, then he/she is more reluctant to share what he/she knows due to fear that what he/she contributes may not be fully accurate or valuable (Ardichvili et al., 2003; Wasko & Faraj, 2000). Competing priorities are also considered a knowledge sharing barrier. An example of competing priority as a barrier is the limited portion of time prioritized by a person in their day-to-day agenda to contribute their knowledge (Gray, 2004; Nonnecke & Preece, 2001; Sawyer et al. 2000). As an example, Gray (2004), repeatedly found in her study that the chief deterring factor affecting the extent of participants' knowledge sharing was lack of time due to competing priorities. Similarly found in an examination of why people lurked in online communities conducted by Nonnecke and Preece (2001), subjects in their study frequently stated that they lurked in their online community due to limited time and also felt that other things were more important for them to do than contributing in the communities.

The concept of community is also involved in the determination of whether people desire to share their knowledge with others. Two common community-related barriers were found from a review of past studies. First, some people were hesitant to contribute knowledge because they perceived a limited identification with the community (Gray, 2004). In Gray's (2004) study, findings about why some individuals never logged in to the online community's website to

contribute their knowledge were uncovered. From interviews with participants in the study, it was found that one of the main reasons for their failure to contribute was a limited identification with the community. Gray's finding suggested a lack of sense of belonging or membership to the community. It can be postulated from Gray's work that people with weak sense of belonging to the community do not contribute their knowledge as much as those with a stronger sense of membership.

Second, some online community members had no desire to contribute their knowledge due to perceived negative egos and attitudes of certain members who attack the ideas of others (Wasko & Faraj, 2000). As explained by Wasko and Faraj (2000), negative attacks on people's ideas can destroy their willingness to share personal knowledge because knowledge is a crucial aspect of an individual's own self-image and self-efficacy. Likewise, an individual's own attitude can also be a barrier associated with knowledge sharing. Personal attitude can prevent the sharing of knowledge. In expounding on how a person's own attitude can be a barrier, Wasko and Faraj (2005) stated:

> In addition, it seems that even when people have the knowledge to help others, they do not always choose to do so. Some people seem to hold the attitude that they only help those people who first try to help themselves. (p. 168)

Further analysis of Wasko and Faraj's (2005) findings revealed that such attitudes seemed to connote that people share knowledge to help a person who is facing a problem, rather than when it makes them feel as if that person is "wanting someone to do their homework" (p. 168) for them.

An additional knowledge sharing barrier is the desire of some individuals to remain completely anonymous. For example, Nonnecke and Preece (2001) explained that at least half

the subjects they interviewed mentioned that the reason why some individuals lurk rather than share their knowledge was because they wanted to remain anonymous to preserve their own privacy. Moreover, some individuals want to hoard their knowledge (Ardichvili et al., 2003). These individuals view knowledge as one's private asset or one's competitive advantage and are therefore hesitant to participate in knowledge sharing due to their concern that they would lose out to others if they do so (Wasko & Faraj, 2000).

An alternative barrier revealed from the review of past empirical studies is the very nature of the knowledge itself. For some, knowledge is considered the property that belongs to a particular institution or organization (Ardichvili et al., 2003). In example, Ardichvili et al. (2003) discovered that certain corporate security restrictions caused people to refrain from sharing their knowledge with other people in the online community. Ardichvili et al. (2003) findings are in agreement with the findings from an examination of a large, Australian state university on individual perceptions of barriers that influence electronic media usage for sharing knowledge. A person who believed that the knowledge was expressly proprietary to the institution or organization was far less likely to share it (Jarvenpaa & Staples, 2000).

Variable 4: Trust

Research demonstrates that *trust* is not easy to define. For example, Tschannen-Moran and Hoy (2000) noted that "trust has been difficult to define because it is a complex concept. It seems by now well established that trust is a multi-faceted construct, which may have different bases and degrees depending on the context of the trust relationship" (p. 551). Interdependence, vulnerability, and reliability pertain to trust in regards to knowing what can be expected from other people (Butler & Cantrell, 1984; Hosmer, 1995). Tschannen-Moran and Hoy asserted that "where there is no interdependence, there is no need for trust . . . interdependence brings with it

vulnerability" (p. 556). Zand (1997) asserted that trust is quite complex and consists of one's willingness to allow his/her vulnerability to another individual whose behavior is unable to be controlled. According to Coulson (1998), trust is one's willingness to have vulnerability with another individual grounded upon one's belief that the individual is concerned, reliable, open, and competent. For the intention of this research study, Coulson's definition of trust will be utilized.

Research has demonstrated that trust is a strong antecedent to successfully facilitating interdependence, collaboration, purposeful discussions, and knowledge sharing activities within learning communities (Andrews & Lewis, 2002; Ardichvili et al., 2003; Bryk & Schneider, 2002; Chiu et al., 2006; Clausen, Aquino, & Wideman, 2009; Hipp, Huffman, Pankake, & Olivier, 2008; Hsu, Ju, Yen, & Chang, 2007; McMahon et al., 2005; Sztajn, Hackenberg, White, & Allexsaht-Snider, 2007; Tschannen-Moran & Hoy, 2000; Usoro, Sharratt, Tsui, & Shekhar, 2007). The literature suggests that trust is especially important in online communities. Particularly highlighted in the literature is relational trust, which is also called interpersonal trust.

Relational trust considers social aspects and conceptualizes trust "not only as a calculative orientation toward risk, but also a social orientation toward other people and towards society as a whole" (Kramer, 1999, p. 573). Bryk and Schneider (2002) proposed that relational trust is grounded in the collective exchanges attached to fundamental relationships. In a longitudinal research study by Bryk and Schneider (1996) of 400 Chicago elementary schools, relational trust was found to be helpful in building effective education communities. Indeed, "when there is trust among people, relationships flourish; without it, they wither" (Preece, 2000, p. 191).

Relational trust cannot be coerced and is based on voluntary commitments. Relational trust develops through the mutual understandings that are formed during sustained communications among people, who are each expected to behave appropriately (Bryk & Schneider, 1996). Relational trust "does not develop spontaneously but must grow out of patterns of practice over time in which people learn that they can depend on each other to behave in predictable ways in high-stakes activities" (City, Elmore, Fiarman, & Teitel, 2009, p. 163). Trust is unable to be enmeshed into online community design without effort (Kling & Courtright, 2003).

Empirical evidence purports that the caliber of communicative exchange and knowledge sharing within a relationship influences trust (Tschannen-Moran & Hoy, 2000). Reciprocally, building a climate of trust is a critical factor in shaping a knowledge sharing atmosphere (Tschannen-Moran, 2001). Examples of such can be identified in both online and in-person settings. For example, Bryk, Camburn, and Seashore (1999) surveyed 5,690 teachers in a study of in-person professional learning communities in the Chicago, Illinois school district to better understand their collective work as a group. Bryk et al. found that when an atmosphere of trust and respect is indicative in a professional learning community, that the collective work as a group progresses. Concurrently, the levels of trust and respect tend to deepen and strengthen the community as a whole, thus creating a relationship between trust and knowledge sharing that mutually reinforces one another.

Additional research findings regarding online communities (Fang & Chiu, 2010; Lin & Lee, 2006; Ridings, Gefe, & Arinze, 2002; Usoro et al., 2007), have similarly determined that knowledge sharing and trust are processes which are mutually reinforcing of one another. Findings from several studies of online communities (Fang & Chiu, 2010; H. Lin & Lee, 2006;

Ridings et al., 2002; Usoro et al., 2007) have similarly established that knowledge sharing and trust are mutually reinforcing processes. As outlined by several reviewed studies, strong reciprocal links between dimensions of trust and sharing of knowledge in virtual communities can be identified (Hoy & Tschannen-Moran, 1999; Tschannen-Moran, Hoy, & Hoy, 1998; Tschannen-Moran & Hoy, 2000).

In conjunction with Hoy and Tschannen-Moran's (1999) definition of trust to be a general willingness to risk one's vulnerability to another individual, the concepts of "benevolence, reliability, competence, honesty, and openness" (p. 186) were identified as multiple facets of trust. Benevolence is "the confidence that one's well-being or something one cares about will be protected by the trusted person or group" (p. 187). Reliability is "the extent to which one can count on another to come through with what is needed" (p. 187). Competence is defined as the ability to depend on someone to have the necessary skills needed for a particular task because "there are times when good intentions are not enough" (p. 188). Honesty refers to "character, integrity, and authenticity" (p. 188). Openness is "the extent to which information is shared and not withheld" (p. 188). Hence, this research study defines trust as "an individual's or group's willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open" (p. 189).

Benevolence. Benevolence is described as the assurance that a person's welfare will be safeguarded and unharmed by the party who is trusted (Baier, 1986; Bradach & Eccles, 1989; Butler & Cantrell, 1984; Cummings & Bromiley, 1996; Deutsch, 1958; Gambetta, 1988; Hosmer, 1995; Hoy & Kupersmith, 1985; Hoy & Tschannen-Moran, 1999; Mishra, 1996; Zand, 1971). Trust relationships assure that the one individual will not exploit another individual's vulnerability even when the chance to do so exists (Cummings & Bromiley, 1996). Benevolence

is a trusting party's belief that the other party (trustee) will make good faith agreements and demonstrate concern for the welfare of others (Mayer, Davis, & Schoorman, 1995; Schaffer, 2005). In circumstances of interdependence, a belief in benevolence is particularly important.

Benevolence can enhance the knowledge sharing intention in relationships (Kankanhalli et al., 2005). For instance, Kankanhalli et al. (2005) revealed that employees may engage in knowledge sharing as a result of being altruistic and feeling enjoyment in helping others. In another study investigating digital communities, Wasko and Faraj (2000) stated that since members wanted to provide beneficial contributions for the wellbeing of the community, they were open to share their knowledge and personal experiences. The interactive partnership among individuals within a community is known to as a social exchange relationship. Hence, the basic foundation for encouraging knowledge sharing within such a relationship is to build an atmosphere of benevolence (Kankanhalli et al., 2005).

Reliability. Reliability incorporates an atmosphere of predictability with benevolence. Trust pertains to predictability, meaning that behavior is consistent, and also being aware of what can be expected from other people (Butler & Cantrell, 1984; Hosmer, 1995). In a case of interdependence, in which one person needs something from another person or group, the feeling that one's needs will be met occurs when the other party is reliable in producing what is needed (Butler & Cantrell, 1984; Mishra, 1996; Rotter, 1967). Predictability refers to the trustor's ability to predict the trustee's behavior, which occurs if the trustee's actions are consistent (Schaffer, 2005). Moreover, the reliability facet of trust deals with the consistency of behaviors to an extent at which an individual knows what to expect from others based on their past behaviors and experiences (Butler & Cantrell, 1984; Rempel, Holmes & Zanna, 1985). A person's willingness to be dependent upon another individual, which is primarily influenced by predictable traits of

the other person, influences the development of trust (McKnight, Cummings & Chervany, 1998) because trust is created from learned predictions consisting of integrity, behavioral consistency and discretion (Robinson & Rousseau, 1994). Additionally, behaviors such as discretion, consistency and transparency, promote trust within group settings (Abrams, Cross, Lesser, & Levin, 2003).

Competence. The good intentions of others are not always sufficient (Hoy & Tschannen-Moran, 1999) when there is a lack of competence. When a person depends on another individual to meet an expectation but who lacks the required skills, that individual might not be trusted even though he/she has good intentions (Baier, 1986; Butler & Cantrell, 1984; Mishra, 1996). For instance, the student of a novice instructor may believe that the teacher has good intentions and the desire to help him/her learn, however, the student may feel an absence of trust if the teacher does not have the appropriate skills. This type of situation speaks to the importance of competence (Tschannen-Moran & Hoy, 1999).

Competence is the trusting person's belief in the trustee's ability to accomplish what needs to be done (Mayer et al., 1995; Schaffer, 2005). Ability includes capacity and skills that enable a person to successfully implement a certain task from the trusting party's perspective (Mayer et al., 1995). A research study that examined the competence of virtual communities in relation to trust found that online users feel more inclined to share information when a virtual community's competence is perceived as high than when it is perceived as low. This perceived competence influences the formation of trust and affirms that the digital community has the capability to effectively share knowledge (Usoro, Sharratt, & Tsui, 2006). Trust is the trustor's willingness to be vulnerable to the trustee predicated upon the belief that the trustee is competent (Gill, Boies, Finegan, & McNally, 2005; Hoy & Tschannen-Moran, 1999; Levin & Cross, 2004).

Honesty. Honesty attributes to one's integrity, authenticity, and character (Hoy & Tschannen-Moran, 1999). Rotter (1967) implied that trust is "the expectancy that the word, promise, verbal or written statement of another individual or group can be relied upon" (p. 651). The connotation is that declarations are candid and tell *what really happened* from the perspective of the person making the statements and that future commitments and promised actions will be maintained. Integrity is characterized by congruence between an individual's statements and actions and authenticity is characterized as assuming responsibility for one's own actions and avoiding untruths (Tschannen-Moran & Hoy, 1998). Many researchers and scholars view honesty as a crucial facet of trust (Baler, 1986; Butler & Cantrell, 1984; Cummings & Bromiley, 1996; Hoy & Tschannen-Moran, 1999).

Openness. Openness is the degree to which pertinent facts are disclosed and to which individuals allow themselves to be open to others by providing information that is personal (Butler & Cantrell, 1984; Mishra, 1996). Openness indicates reciprocal trust and that neither the individual nor the information shared will be taken advantage of. Adversely, when people guard information and are resistant to granting trust by being open they provoke suspicion and distrust (Kramer, Brewer, & Hanna, 1996). Albeit, each facet of trust is significant, their relative value will depend on the nature of the interdependence and vulnerability within the relationship.

Challenges of creating trust in online communities. Although trust is affirmatively connected to knowledge sharing in both online and in-person communities, virtual communities face unique challenges in cultivating trust without the facial expressions and the verbal-nonverbal cues available in face-to-face communities (Ridings et al., 2002). "In the online setting, the sense of social distance and the lack of social cues make it hard for people to identify with each other and to assess mutual ability, integrity, and benevolence" (M. Young & Tseng,

2008, p. 56). In virtual learning environments, trust is further conciliated by the extent to which participants feel effectual social affiliation towards each other (Ardichvili, 2008; Ridings et al., 2002).

Several research studies specifically investigated the distinct obstacles relating to trust in virtual communities of knowledge sharing. Feng, Lazar, and Preece (2004) researched the causes for why online learners elect to trust or not to trust and how online learners decide whether or not they trust each other. The study, which examined participants' online conversation patterns, probed the effects of empathy on interpersonal trust in virtual settings. Feng et al. found that the specific ways in which online community members respond to requests from their respective members have a productive impact on virtual interpersonal trust.

As asserted by Barab, MaKinster, and Scheckler (2003) based on their case study investigating a digital community for science and mathematics teachers, trust needs to be reciprocal between knowledge recipients and knowledge providers. Receivers of knowledge must trust knowledge providers in an online community and knowledge providers have to be capable of trusting the intentions of the knowledge recipient. In another study, Carroll et al. (2003) noted that participating teachers of virtual communities need to feel as though they are able to trust that any data about their individual performance will not be used against them and that some degree of protection and privacy will be allowed for during sharing activities. Wu, Chen, and Chung (2010) found in their research on trust factors influencing Taiwanese online community members, that online communities with privacy policies substantially increase trust levels amongst its members. Privacy policies are perceived by virtual community members as a means of protection that affords the control and security of information within the virtual community.

The literature has identified motivators and support factors that stimulate knowledge sharing as well as barriers to knowledge sharing within virtual communities. In addition, the research has examined perceptions of trust within virtual settings and the significance of trust for the sharing of knowledge (Gairín-Sallán, Rodríguez-Gómez, & Armengol-Asparó, 2010). A few studies propose recommendations for nurturing knowledge sharing and trust in virtual communities. These suggested practices include: developing a centralized group of people (Chiu et al., 2006; Wasko & Faraj, 2005), ensuring that in-person meeting opportunities are provided (Ardichvili, 2008; Babinski, Jones, & DeWert, 2001; Wasko & Faraj, 2005), delivering individual virtual communication to members to establish relationships and to encourage them to post to the community (Beenen et al., 2004; Gray, 2004), establishing a searchable directory of members (Babinski et al., 2001; Chiu et al., 2006; Feng et al., 2004) posting internet etiquette protocols (Ardichvili et al., 2003; Nonnecke et al., 2006), and giving notice of policies regarding privacy (Wu et al., 2009).

These recommendations from the literature not only help participants in a community to be cohesively integrated (Hoy & Tschannen-Moran, 1999), but also help to develop trust and cultivate quality knowledge sharing in online communities (Ardichvili, 2008; Chiu et al., 2006; Hsu et al., 2007; Usoro et al., 2007; M. Young & Tseng, 2008). Increased trust fosters knowledge sharing, and reciprocally, expanded knowledge sharing reinforces trust (Chiu et al., 2006; Fang & Chiu, 2010; Usoro et al., 2007). Further, the suggested practices from the literature may help build and sustain knowledge sharing relationships (Bryk & Schneider, 2002; Levin & Cross, 2004; Usoro et al., 2007).

Summary

The theoretical, historical, and empirical literature reviewed in this chapter supports the research study's investigation of graduate students' perceptions of knowledge sharing within a hybrid learning environment. The literature review on knowledge sharing unveiled a major gap in the research in that characteristics of hybrid learning communities are rarely discussed with respect to knowledge sharing (Gaved & Mulholland, 2005). Some of the research has observed that indicators explaining reasons why people elect to engage in online knowledge sharing are not understood well (Ridings et al., 2002; Wasko & Faraj, 2000). Additionally, in studies that do explicitly address motivators for knowledge sharing, the researchers did not expound or elaborate on the significant characteristics of the online communities they studied (Ardichvili et al., 2003; Wasko & Faraj, 2000).

The literature review raised the question of *what is knowledge?* And then, subsequently, *what does knowledge sharing actually look like?* These enigmatic questions fascinate scholars, however, no general consensus has emerged (Grant, 1996). Fortunately, for the intent of this research study, it is not necessary to engage in philosophical debate to scrutinize the terms knowledge and knowledge sharing as such a deliberation is not a crucial factor pertaining to the investigation. Notwithstanding, it is still pragmatic to discuss the ideas and viewpoints of knowledge sharing as presented in relevant literature.

The literature determined that fostering knowledge sharing is among the most arduous challenges confronting online communities (Barab, Kling, & Gray, 2004; Chiu et al., 2006; Fang & Chiu, 2010; Hsu et al., 2007; M. Lin, Hung, & Chen, 2009). The literature also pointed out that online communities fail to thrive without the ongoing exchange of knowledge (Ardichvili, 2008; Chiu et al., 2006; Fang & Chiu, 2010). Research has firmly indicated that trust is a leading

enabler for knowledge sharing to occur in virtual environments (Ardichvili, 2008; Ardichvili et al., 2003; Fang & Chiu, 2010; Feng et al., 2004; Hsu et al., 2007; Riding et al., 2002; Sharratt & Usoro, 2003; Usoro et al., 2007; M. Young & Tseng, 2008). Further, the research indicated that trust among members of virtual communities needs to be better understood in furtherance of how to circumvent knowledge sharing barriers (Ardichvili et al., 2003). Additionally, Wenger, White and Smith (2009) asserted that "learning together depends on the quality of trust relationships and mutual engagement that members develop with each other" (p. 8).

In Hoy and Tschannen-Moran's (1999) concept of trust, a person's consent to be vulnerable to another person is founded upon the belief that the other party is benevolent, reliable, competent, honest, and open. In spite of trust being related to effectual knowledge sharing in both in-person and digital settings (Ridings et al., 2002; M. Young & Tseng, 2008), knowledge sharing practices within a virtual community are regarded as individual, voluntary behaviors that are motivated by reciprocity (Ma & Yuen, 2011). Individuals may trust one another to share personal thoughts and information when reciprocity occurs in a virtual community causing successful knowledge sharing to take place (Hsu & Lin, 2008; Ridings et al., 2002). Considering the reciprocal relationship among individuals, trust is a significantly vital for knowledge sharing to occur in digital settings (Ma & Yuen, 2011). However, literature has also shown that being a member of an online group does not necessarily prompt individuals to share knowledge (Usoro et al., 2007), implicating that barriers to knowledge sharing indeed exist (Dornyei, 2001; Falout & Maruyama, 2004).

Although scholars have introduced knowledge sharing motivators (Elliot & Covington, 2001), knowledge sharing barriers (Ardichvili et al., 2003; Wasko & Faraj, 2000), and the concept of trust (Hoy & Tschannen-Moran, 1999) to understand knowledge sharing behaviors,

relatively little empirical evidence of the perceptions of knowledge sharing within hybrid learning environments has been provided by research. This qualitative investigation seeks to provide an understanding of the lived experiences of individuals who are currently enrolled in a master's or doctoral level hybrid academic program at Pepperdine University's Graduate School of Education and Psychology and who, thereby, have insight regarding knowledge sharing behaviors within their academic program cohort's hybrid learning environment.

Chapter Three: Methodology

The practice of utilizing qualitative research methods to gather and analyze data has risen significantly during the last couple of decades (Corbin & Strauss, 2014). A qualitative research study seeks to understand the phenomenon, and the meanings and perceptions that individuals affix to their lived experiences (Caelli, Ray, & Mill, 2003; Creswell, 2007, 2009; Denzin & Lincoln, 1998; S. Taylor & Bogdan, 1998). When research studies are conducted using a qualitative methodology, the researcher can focus on understanding the meaning of the problem or issue from the participants' description of their personal experience, versus the interpretation that the researcher might apply to the research (Creswell, 2009). Qualitative research offers the opportunity to probe and explore the perspectives of the participants to gain an understanding of real life experiences, providing richness when used to discover salient themes and categories of meaning (Miles & Huberman, 1994; S. Taylor & Bogdan, 1998).

Restatement of Study Purpose

The purpose of this phenomenological study was to explore graduate students' perceptions of knowledge sharing within hybrid learning environments. A qualitative research interview design was implemented in an effort to understand the knowledge sharing behaviors of participants enrolled in hybrid (part face-to-face and part online) academic programs at a private university, Pepperdine University's Graduate School of Education and Psychology. This research study sought to provide an authentic insight into the individual perspectives and lived experiences of study participants who had direct experience and immediate knowledge of the phenomenon investigated.

Restatement of Research Questions

In this phenomenological investigation, the overarching research question was: What are the perceptions of knowledge sharing among graduate students within hybrid learning environments? Additional research questions included: What are the lived experiences of graduate students with regard to knowledge sharing during group discussions within hybrid learning environments? What effects, if any, does the phenomenon of knowledge sharing have on overall student learning experiences for graduate students within hybrid learning environments? The research questions in this investigation sought to understand "the object of human experience" (Van Manen, 1990, p. 163) and "the importance of the individual experiences of people as conscious human beings" (Creswell, 2007, p. 236).

Overview of Chapter Content and Organization

In addition to the introduction, restatement of study purpose, and restatement of research questions, Chapter Three also includes the research methodology and rationale. The chapter describes the research approach, selected methodology, and detail data collection strategies that were employed for the qualitative investigation. The research methodology and rationale section of Chapter Three also discusses the validity of the research design and the trustworthiness of the study design. In this chapter, the setting, population, sample, and sampling procedures of the research study is explained. This section of the chapter describes the target population from which the participants were recruited for the research study and explains how the proposed participants were recruited and selected.

Next, human subject considerations are discussed. This section details the steps taken by the researcher to protect human subjects from potential risks related to study participation. The procedures for informed consent and confidentiality, and how potential risks were minimalized,

are discussed. Then, Chapter Three details the study instrumentation and its alignment with the problem statement, research questions and the emergent variables followed by data collection procedures, data management, and data analysis. In this final section of Chapter Three, the specific steps that were implemented for data collection are described, including where and how the collected data was stored and protected. The data analysis section provides the researcher's proposed method for the subsequent presentation of the findings, which is discussed further in a later chapter. Positionality of the researcher is included in Chapter Three.

Research Methodology and Rationale

The research process of the study is defined by its methodology. In this research study, a qualitative approach was applied in an effort to uncover phenomenological data pertaining to the research topic explored. A qualitative methodology focuses on understanding how individuals interpret and describe their experiences (Burrell & Morgan, 1979; Creswell, 1994, 2003). The qualitative methodology applied in this research study was interactive in nature, allowing themes and categories to emerge from the participants' descriptions of knowledge sharing. Qualitative research design is an inquiry process that seeks to explore a human problem or a social problem in which the researcher builds a holistic picture, analyzing and reporting the views of the participants providing information (Creswell, 1998). The qualitative inquiry process included recording and analyzing collected data from subjects in an attempt to grasp a deeper meaning of the lived experience, including the behaviors, beliefs, and emotions of the participants. A qualitative research design was an appropriate methodology for this study because it sought to explore the perceptions of graduate students in hybrid learning environments through their in-depth descriptions of their lived experiences related to the phenomenon.

Exploratory studies are conducted to discover and gain a better understanding of various kinds of social phenomena, yielding new insights into the topic of research where there is a limited availability of research (Babbie, 1995; Cooper & Schindler, 2011; Merriam, 1998). Exploratory qualitative inquiry offers flexibility by not having to subscribe to any particular methodology in explaining various kinds of social phenomena (Babbie, 1995; Cooper & Schindler, 2011; Merriam, 1998; Sandelowski, 2000). The exploratory qualitative inquiry methodology is appropriate when the phenomenon under investigation is not easy to quantify or measure. A phenomenological research investigation intends to describe the meaning of the lived experiences of a particular phenomenon (Creswell & Plano Clark, 2006). The primary purpose of phenomenology is to describe the essence of the phenomenon, a "grasp of the very nature of the thing" (Van Manen, 1990, p. 177). This description of the phenomenon includes *what* has been experienced and *how* it was experienced, not explanations or analyses (Moustakas, 1994).

Transcendental phenomenology targets the description of the experiences of the participants more so than the researcher's interpretations (Moustakas, 1994). Transcendental means "in which everything is perceived freshly, as if for the first time" (p. 34). Through the use of *bracketing* or *epoché*, a concept developed by German mathematician Edmund Husserl (1859-1938), the researcher sets away his/her own experiences to take on a novel view of the phenomenon being explored (Creswell & Plano Clark, 2006). The characteristics of phenomenology were more fitting for this research study as compared to other approaches, such as grounded theory or ethnography, since phenomenology intends to understand the essence of the lived experience. Grounded theory, on the other hand, seeks to develop a theory based on field data and ethnography seeks to interpret culture-sharing groups. In the phenomenological approach, the experiences of several individuals are explored, as opposed to studying an

interaction involving many individuals as in the grounded theory approach or the ethnographic approach which studies a group that shares the same culture (Creswell & Plano Clark, 2006.) In addition, when exploring a topic that is relatively new or little is known, an exploratory qualitative method is typically used as a generic qualitative inquiry approach rather than focusing the investigation through the lens of other methodologies that are not appropriate (Babbie, 1995; Caelli et al., 2003; Cooper & Schindler, 2011; Creswell, 2007).

Accordingly, since limited research exists on the subject matter of the study, qualitative methodology was most appropriate for this investigation, as it attempts to unearth new insights on how knowledge is shared in hybrid learning environments among graduate students. Since the research study was exploratory in nature, the technique of permitting the data to speak on its own additionally reinforced the rationale for employing a qualitative inquiry method. Given that qualitative methodology utilizes context, subjective interpretation, and individual experience (Heppner, Kivlighan, & Wampold, 1999), generalizability is not possible, nor is it a goal. In addition, the phenomenological approach is most suitable for the type of problem that needs to describe the essence of a lived phenomenon (Creswell & Plano-Clark, 2006), such as in this qualitative investigation.

Validity/Trustworthiness of Study Design

According to Creswell (2003), designing a research study starts with selecting both a topic and a paradigm that is based on a basic set of assumptions about what constitutes valid research to guide the researcher through the research process (Creswell, 1998). The topic in this qualitative research study was graduate students' perceptions of knowledge sharing in hybrid learning environments. The interpretive paradigm, which views the world throughout emergent and subjective processes (Burell & Morgan 1979), was identified for the framework of the study.

In determining interpretive paradigm appropriate for this research study, the researcher considered various philosophic assumptions associated with this qualitative research including ontological, the nature of reality; epistemological, the nature of knowledge and knowing; and methodological assumptions, the methods used in the process or methodology (Creswell, 2007; Lincoln & Guba, 1985; Swanson & Holton, 2005).

Ontological assumption considers the nature of reality through multiple subjective views or a single objective view. This research study utilized the ontological assumption of multiple subjective views of reality. The phenomenon of knowledge sharing is the result of individual perspectives and is derived contextually. By using this approach, meaning was applied to interpret the unique perspectives of the participants in this study (Creswell, 1994, 1998). This research study explored the subjective descriptions of knowledge sharing provided by the participants.

Epistemology allows the researcher to achieve a deeper to the meanings of the lived experiences of the participants being studied (Babbie, 1995; Creswell, 2007, 2009; Denzin & Lincoln, 1998; Lincoln & Guba, 1985). The role, values, and biases of the researcher are determined through epistemological assumptions. The researcher in this study served a central role in the determination of interview questions as advised by field testing and subject matter experts; and in conducting an in-depth interview with each of the participants (Burrell & Morgan 1979; Creswell, 1994, 1998). The researcher was instrumental in the collection of data by note taking and audio recording each participant's responses during the interviewing process. The researcher's epistemological assumptions guided how the data were collected, interpreted, and reported (Patton, 1990).

The researcher's role in qualitative design is important. The researcher collects the data and reports the data in a way that offers "detailed views of informants" (Creswell, 1998, p. 15). Because of the important role of the researcher, the assumptions, values, and biases of the researcher will be pointed out as a component of the research study (Burrell & Morgan, 1979; Creswell, 1994, 1998; Kvale, 1996; Patton, 1990). The researcher's bias regarding knowledge sharing in hybrid learning environments was taken into consideration. The researcher's relationship to the study included that the researcher was also enrolled as a graduate student in a hybrid learning format academic program at Pepperdine University Graduate School of Education and Psychology. Any potential bias on the part of the researcher was addressed by using methods to establish validity and trustworthiness.

To establish validity and trustworthiness in this research study, respondent validation and bracketing was used (Lincoln & Guba, 1985). The researcher used respondent validation to ensure accuracy of data transcription and interpretation, which entailed revisiting the collected data and interpretations with to the individual participants of the study in order for them to affirm the credibility and authenticity of the data and their personal narrative account (Creswell & Miller, 2000). Respondent validation is "the most crucial technique for establishing credibility" in a qualitative research study (Lincoln & Guba 1985, p. 314). During the course of the phenomenological investigation, bracketing required the researcher to deliberately cast away her own belief about the phenomenon investigated or what she already knows about the topic (Carpenter, 2007).

Setting

This research study was conducted at the Pepperdine University Graduate School of Education and Psychology, a private institution in southern California that offers various

master's and doctoral degree academic programs designed as cohorts in a hybrid learning format. The format of these hybrid learning style graduate level programs included that instruction and learning occurs partly online and partly via face-to-face sessions meeting on campus. The distinct nature of these hybrid graduate programs involved a design for the working professional, allowing students to continue full-time work while engaged in their studies. The specific circumstances involving the setting and context for the research study included a one-on-one interview session between each participant and the researcher, at a mutually agreed upon public location or through a virtual video conference using Pepperdine University's Google Hangout.

Population, Sample and Sampling Procedures

The targeted population for this exploratory qualitative research study was male or female higher education students currently enrolled in either a master's degree or doctoral degree hybrid learning format academic program in the Graduate School of Education and Psychology at Pepperdine University. The sample was drawn from a pool of interested graduate students fitting the target population description who responded to participant request notices via an email sent by IRB on behalf of the researcher (see Appendix A). The participant request notice informed subjects of the researcher's identity, the title and purpose of the research study, the research method, participant eligibility requirements, and the data collection procedures that were used in the study.

In an effort to recruit sufficient participants for the sample who met the requirements of the study (Hulley, Cummings, Browner, Grady, & Newman, 2013), the required criteria for potential participants was detailed on the participant request notice as follows: (a) must be a currently enrolled graduate student in a hybrid academic program, either master's degree or doctoral degree, at Pepperdine University's Graduate School of Education and Psychology and

(b) must have availability to participate during the data collection proposed timeframe of August-December, 2016. An informed consent form was included with the participant request notice detailing the scope of the investigation, the study participation requirements, possible risks, participant rights, and the voluntary nature of participating in the study (see Appendix A).

Qualitative research is inclined to be purposeful and usually involves a small sample of individuals who are comprehensively studied (Miles & Huberman, 1994). Purposeful sampling involves targeting a particular group of individuals that have actual experience with the phenomenon of interest (Creswell & Plano Clark, 2011). A purposive sample yields individuals who can most aptly provide information regarding the problem being examined in the research study (Creswell, 2007). Therefore, this qualitative research study used the purposeful sampling strategy to identify appropriate participants. A good participant is one who has the experience and knowledge that the researcher requires, is able to reflect and articulate, is available to participate in the research study, and is willing to be a participant in the study (Denzin & Lincoln, 1998; Patton, 1987). Selected participants were those who were willing to voluntarily share their individual perceptions of their lived experiences with the phenomenon of knowledge sharing within the hybrid learning environment of their academic program cohort.

No particular rules exist for determining a purposive sample size; nonetheless, the sample yielded should allow enough size to be credible yet still small enough to allow for sufficient detail and depth of each unit in the sample so as not to rely on the total of subjects but rather the quality of the information obtained (Patton, 1987; Sandelowski, 1995). Several authors (Hill et al., 2005; Hill, Thompson, & E. Williams, 1997) recommend the use of eight to 15 interview participants to ensure rich data, correspondingly, the desired number of subjects for this research study was ten to 15 participants. Although sample size may refer to number of persons,

participants principally engage in qualitative studies because they have a wealth of direct, personal knowledge and personal experience that they are amenable to and able to communicate to others (Sandelowski, 1995). The procedures for selecting subjects and determining the sample size for the study as indicated in this chapter are in accord with the methodology of qualitative research (Miles & Huberman, 1994).

Human Subject Considerations

The welfare and rights of human subjects will be safeguarded in that researchers must protect their research participants (Creswell, 2009). The researcher first obtained permissions from the Pepperdine University Institutional Review Board (IRB) to conduct the research study (see Appendix C). After permission was granted from IRB, the researcher ensured that all research standards and principles were upheld, especially in the consideration of human subjects (Creswell, 2007; Swanson & Holton, 2005; S. Taylor & Bogdan, 1998). With respect to such, participants were protected from any potential risks associated with participation in the study by the researcher informing participants of the voluntary nature of participating in the study and their right to withdraw from the study at any time.

Further, the informed consent form disclosed detailed research study information, including the purpose of the study, data collection procedures and management, and specifically what the participants would be doing in the study (participating in an audio-recorded, one-on-one interview with the researcher and individual post-interview follow-up to ensure accuracy of the transcribed audio-recorded interview responses). The researcher ensured that each participant reviewed the informed consent form by summarizing the informed consent prior to proceeding with the data collection process. A copy of the informed consent form indicating the agreement terms was provided to each participant in the sample group.

Moreover, a researcher safeguards participants' identity by assigning pseudonyms or aliases to individuals (Creswell, 2007). Thus, each participant was informed that his/her identity would be protected by assigning an alias name to protect their right to privacy by ensuring confidentiality in this research study. The actual names of participants remain confidential in agreement with the policies and procedures identified by the Pepperdine University IRB. Participants are not referenced by their actual names or other attributing factors that may potentially identify them. Any reference to individual participants in the reporting of the research study findings was made solely by the assigned aliases.

Instrumentation: Validity

A universal protocol of qualitative research is to accumulate broad details and elucidate the specific information being sought (Creswell, 2007). The process of inquiry is determined based on research questions (Creswell, 1998). As with qualitative investigations, the research questions of this investigation intended to explore the *how* and *what* (Miles & Huberman, 1984). This research study specifically examined the participants' perceptions and descriptions of knowledge sharing with the data collection focus being on the *how* and *what.* Qualitative data provides a holistic yet complex picture, with participants providing meanings from their own perceptions (Creswell, 1998).

In this research study, an open-ended, semi-structured individual interview with probing questions was used to engage the respondent in providing rich, authentic details that described the phenomenon being explored. A recommended method to develop interview instrumentation was to construct an interview protocol that consists of approximately eight to 10 questions with probing questions for a 1-hour timeframe (Hill, et. al., 2005). The instrument contained a total of

ten main items and demonstrated correlation to the study's problem, purpose, research questions, and qualitative methodology (see Appendix B).

The interview questions were reviewed by two subject matter experts to ensure that they are quality questions that align to the problem and purpose of the research study and the research questions. The first subject matter expert was an executive management level professional of a public K-12 school district who holds a doctoral degree in education which was earned from a university in which the subject matter expert participated in a hybrid learning environment. The other subject matter expert was a doctoral candidate in the field of education who participated in a hybrid learning academic program. The researcher conducted two separate pilot interviews, each with a graduate student who was participating in a hybrid learning environment to determine whether the interview questions and technique would yield the in-depth information that the study was seeking about perceptions of knowledge sharing in hybrid learning environments. The interview questions were modified based on the feedback from the subject matter experts and the practice interviews for quality control. To ensure that participants were qualified to participant in the study and to assist with ensuring that the participants felt comfortable during the interview in order to provide their meaningful insight of the phenomenon, the interview questions began by asking the participants qualifying questions in relation to the study (Hill et. al., 1997). The instrument was organized as a "conscious attempt by the researcher to find out more information about the setting of the person" (Bailey, 1996, p. 72) and to "understand the world from the subjects' point of view, to unfold meaning of peoples' experiences" (Kvale, 1996, p. 2).

Data Collection Procedures

Qualitative inquiry has several methods of collecting empirical data, such as the analysis of artifacts, documents, cultural records or personal experience; direct observation; and interviewing (Denzin & Lincoln, 1998). The data collection method that was used for this exploratory qualitative research study was a one-on-one, open-ended semi-structured interview with each of the eight to 15 participants who agreed to voluntarily detail and describe their personal lived experience of the phenomenon (Cooper & Schindler, 2011; Crotty, 1998; Giorgi, 1985; Miles & Huberman, 1994; Patton, 2002).

The data collection process in this research study began after the researcher sought and obtained approval from the Pepperdine University IRB (see Appendix C) and from the Dean of Pepperdine University's Graduate School of Education and Psychology. When the study gained appropriate approvals, the researcher then requested subjects' participation in the study via email message that the researcher provided to IRB to send to the potential subjects on the researcher's behalf. The email message informed the potential subjects of the researcher's identity, the purpose of the research study, and the research method (interviews), potential risks and participant rights, and the requirements for participation eligibility: (a) must be currently enrolled in either a master's degree or doctoral degree program that is formatted part online and part face-to-face (hybrid) at the Pepperdine University Graduate School of Education and Psychology, and (b) must have availability to participate in the study during the data collection timeframe.

Following participant recruitment, the researcher then scheduled a one-on-one interview with each selected participant. Communication to selected participants was via email, which was destroyed at the conclusion of the study. Next, a semi-structured interview session was scheduled and conducted either face-to-face or virtually via Pepperdine University's Google Hangout with

each participant at a convenient location and time acceptable to the participant and the researcher. The participant determined which option they preferred for the interview, choosing either face-to-face or virtual. Prior to the start of the interview, each selected participant was assigned an alias to ensure confidentiality throughout collection and analysis of data and the reporting of the research study findings. The estimated timeframe for each interview was approximately 1 hour in length. Interviews varied in length from 45-75 minutes. To ensure sufficient time to conduct the interview the researcher allowed a 2-hour window for each participant.

Upon meeting each participant at the scheduled interview time to conduct the individual semi-structured, qualitative interview, the researcher reviewed and summarized the informed consent form, including the voluntary nature of participation in the study, possible risks, confidentiality, and data collection procedures with the participant. Each participant was provided with a hard copy of the informed consent form, which waived signatures per IRB. The interviews were audio-recorded via the use of a digital audio recording device with attached microphone as indicated on the informed consent form. Prior to the start of the audio recording, the researcher explained to each participant that an alias was assigned to him/her. At the start of the audio recording, the researcher indicated the assigned alias, date, and time prior to asking the participant the interview questions. The primary data collection instrument used for the exploratory qualitative investigation was an open-ended, semi-structured in-depth interview, probing participants to expound upon and elaborate his/her descriptive responses as they pertained to the phenomenon.

The interviews began with brief qualifying questions in an effort to ensure that the participant was comfortable and to ensure that the participant was eligible to participate in the

study. The researcher utilized an interview guide for consistency in the interviewing process. The interviewer asked each participant ten main questions relating to his/her experiences with knowledge sharing as a graduate student in a hybrid learning environment at a private university. The term *knowledge sharing* was defined for the participants. For the intended purpose of the interview process, *knowledge sharing* was defined as an ongoing process in which individuals within a group communicate to share thoughts, ideas, or solutions with the goal of ongoing voluntary exchanges of knowledge to the benefit of the group (Davenport & Prusak, 2000) and specifically entails activities or behaviors involving the transmission of knowledge from one individual to another (Jalal, Toulson, & Tweed, 2010).

As each interview session was audio recorded via the use of a digital audio recording device with attached microphone, the researcher spoke clearly and allowed the participant to respond fully before proceeding to a probing question. While the interview was taking place, the researcher recorded written notes of comments or gestures from the participant that appeared to be noteworthy. The researcher was sensitive to any signs of discomfort through careful attention and the intent to ensure a confidential, safe climate throughout the duration of the interview process, allowing the participant the opportunity to completely articulate his/her related experience to the phenomenon being studied. The researcher occasionally summarized for clarity of the participant's comments, bracketing any personal preconceived notions or experiences (Creswell, 2007; Miles & Huberman, 1994; Moustakas, 1994; S. Taylor & Bogdan, 1998).

Bracketing, or epoché, is seen by some theorists as a method to identify and manage any preconceived assumptions or bias that the researcher may have regarding the phenomenon. Bracketing helps to diminish any potential bias and permit the researcher to set away all foregoing paradigms of thought and freshly recover the perception from individuals

comprehensively describing their experience (Creswell, 2007; Crotty, 1998; Denzin & Lincoln, 1998; Giorgi, 1985; Miles & Huberman, 1994; Moustakas, 1994; S. Taylor & Bogdan, 1998; Van Manen, 1990) through the interview process. Because of the researcher having association with the phenomenon being studied, bracketing was used as a means of conserving possible assumptions and presuppositions about the phenomenon being investigated that the researcher may have had. During both the data collection and data analysis processes, the bracketing method was used to confirm validity. (Ahern, 1999).

After the last interview question was asked, the researcher then extended an invitation to the participant to add any additional remarks before concluding the interview session. At the conclusion of the interview, the researcher thanked the participant for their time and scheduled the post-interview follow-up with him/her to allow the participant to verify the accuracy of his/her collected interview responses as indicated in the Interview Guide (see Appendix B).

Data Management

The data collected from the participants was managed solely by the researcher. The researcher utilized a qualitative data analysis software called ATLAS.ti to assist with transcribing and coding the interview text. The researcher coded and organized the data to uncover any possible themes or patterns from the participants' interview responses. After using the ATLAS.ti software to transcribe, code, and analyze the collected data, the researcher downloaded hard copies of the data and deleted the software files. The researcher maintained the hard copied data and any hard copied notes that were generated during data collection in a secured and locked office drawer in the researcher's personal office. The researcher was the sole person to have access to the stored and protected data. The data transcripts and any documents,

such as code sheets or emails that identify the subjects were destroyed after the study's completion.

Data Analysis

The instrument for analysis across all phases of a qualitative research project is the researcher (Starks & Trinidad, 2007). The data analysis procedures included multiple components. First, human-to-human, semi-structured interview questions resulted in audio-recorded interview responses from the participants. For ease and accuracy of data analysis (Kvale, 1996), the researcher uploaded the audio recordings to the ATLAS.ti qualitative data analysis computer program, which transcribed the audio recordings. After data transcription, the researcher used respondent validation to ensure the accuracy of the transcribed interview responses. Each participant received an individual email of his/her transcribed interview responses from the researcher for the participant to review and confirm for accuracy. The participants themselves, through respondent validation, can legitimately authenticate credibility, trustworthiness, and validity during the study investigation (Creswell, 2007; Denzin & Lincoln, 1998; Trochim, 2006).

After respondent validation was completed, the collected data was interpreted and emerging themes related to the phenomenon from the detailed descriptions of the participant responses was identified through the use of the ATLAS.ti qualitative data analysis software. This qualitative research study used the inductive approach in the data analysis process, which was aided by utilizing the ATLAS.ti computer tool. Qualitative inquiry uses the inductive approach to data analysis in an effort to focus on recognizing patterns and themes and finding recurrent representations from the participant data collected via semi-structured interview. Inductive approaches are intended to guide comprehension and meaning in complex data by developing

these summary themes or categories from the collected raw data (Thomas, 2006). The inductive approach of analysis aims to identify emerging patterns and themes from the aggregated data to find repeated sequences of meaning (Denzin & Lincoln, 1998; Patton, 1987; S. Taylor & Bogdan, 1998).

Using the inductive analysis approach, the researcher examined the collected interview data from each participant by reading and reviewing the interview transcripts line by line for relevance to the research questions (Creswell, 2003; Kvale, 1996; Miles & Huberman, 1994). The researcher highlighted any sentences or phrases that appeared to have specific meaning and relevance to the research question. Next, the researcher identified initial groups of patterns for the data by reviewing the emerging codes directly from the interview text via the ATLAS.ti software. The researcher analyzed the set of codes based on the participants' language and descriptions of knowledge and knowledge sharing. The researcher clustered identified patterns of data and then reviewed all patterns for the emergence of comprehensive themes.

After analyzing all the data, the themes were organized into categories with respective supporting patterns and codes. The researcher formulated conclusions established by the analysis of the data, providing a summarization of outcomes to the research questions guiding this exploratory qualitative research study. In the following chapter, these data findings are presented by selection of a format that is relevant to what the research was trying to understand.

A frequent form of presentation for qualitative data findings has been extended text; however, displays are a major approach to validate qualitative analysis and can include many types of matrices with defined rows and columns, graphs, charts and networks. A matrix allows themes to be conveniently arranged with supplementary patterns and descriptors. A matrix is designed to help hone data in an exploratory way for alignment with the research question (Miles

& Huberman, 1994). Therefore, the data was presented using a matrix to clearly organize the research findings. Nevertheless, due to the small representative sample of participants from various hybrid graduate programs at the Pepperdine University Graduate School of Education and Psychology, the researcher cannot guarantee that the findings that emerged from this research study are transferable to all graduate students engaged in hybrid learning format academic programs.

Positionality

The researcher in this study was enrolled at the Pepperdine University Graduate School of Education and Psychology at the time of the investigation. The researcher had been pursuing a doctorate degree in Educational Leadership, Administration, and Policy which is a hybrid format program. The researcher may have had particular insights into the study since the researcher has experienced the phenomenon of knowledge sharing in a hybrid learning environment. As previously stated in this chapter, bracketing or epoché was used to address any potential bias on the part of the researcher. Respondent validation was also employed to confirm the accuracy and validity of the collected participant interview data.

The researcher may have known potential participants due to the researcher being a current graduate student at Pepperdine University Graduate School of Education and Psychology. However, the nature of the researcher's relationship to the study was instrumental in helping selected study participants feel comfortable to candidly share their perceptions and lived experiences with the topic being investigated. The research study was inspired based on the researcher's association with the phenomenon.

Chapter Four: Presentation of Findings

Introduction

Chapter Four is the presentation of the investigation findings. This chapter begins with a restatement of the study purpose. Next, the research questions and an overview of the research design will be provided. Chapter Four will also include a summary of key findings organized into major sections according to the guiding research questions. The detailed findings from the researcher's data analyses will be presented within each of these major sections.

Restatement of the Study Purpose

The purpose of this phenomenological investigation was to explore perceptions of knowledge sharing among graduate students within hybrid learning environments. This qualitative research study examined the lived experiences of graduate students currently enrolled in hybrid (part face-to-face and part online) academic programs at a private university. In an attempt to understand knowledge sharing among graduate students within hybrid learning environments, this study provides an authentic insight into the perspectives of participants who have firsthand experience with the phenomenon of this investigation.

Restatement of the Research Questions

In this phenomenological research study, the research questions are: (a) What are the perceptions of knowledge sharing among graduate students within hybrid learning environments? (b) What have been the lived experiences of graduate students with regard to knowledge sharing during group discussions within hybrid learning environments? (c) What effects, if any, did the phenomenon of knowledge sharing have on overall student learning outcomes for graduate students in hybrid learning environments? These research questions guided the researcher's interactions with study participants.

Overview of the Study Design

In this research study, a qualitative design was applied to uncover phenomenological data pertaining to the research topic being explored. A qualitative methodology focuses on understanding how individuals interpret and describe their lived experiences of a particular phenomenon (Burrell & Morgan, 1979; Creswell, 1994, 2003; Creswell & Plano Clark, 2006). Qualitative research design is an inquiry process that seeks to explore a human problem or a social problem in which the researcher builds a holistic picture, analyzing and reporting the views of the participants providing information (Creswell, 1998). The qualitative methodology applied in this research study allowed themes and categories to emerge from the participants' descriptions of knowledge sharing. The qualitative inquiry process in this study included audio recording and analyzing collected data from subjects in an attempt to grasp a deeper meaning of the lived experience, including the behaviors, beliefs, and emotions of the participants. A qualitative research design was an appropriate methodology for this study because the goal was to explore the perceptions of graduate students in hybrid learning environments through their in-depth descriptions of their lived experiences related to the phenomenon.

The interpretive paradigm, which views the world throughout emergent and subjective processes (Burrell & Morgan 1979), was identified for the framework of the study. The researcher's role in the qualitative design of this study was important, therefore, the researcher's bias regarding knowledge sharing in hybrid learning environments was pointed out as a component of the research study (Burrell & Morgan, 1979; Creswell, 1994, 1998; Kvale, 1996; Patton, 1990). Any potential bias on the part of the researcher was addressed by using methods to establish validity and trustworthiness.

To establish validity and trustworthiness in this research study, respondent validation and bracketing was used (Lincoln & Guba, 1985). The use of respondent validation, which entails revisiting the collected data and interpretations with to the individual participants of the study in order for them to affirm the credibility and authenticity of the data and their personal narrative account (Creswell & Miller, 2000), ensured the accuracy of data transcription and interpretation. During the course of the phenomenological investigation, bracketing was used in which the researcher was required to deliberately cast away her own belief about the phenomenon being investigated or what she already knows about the topic (Carpenter, 2007).

The specific circumstances involving the setting and context for the research study included a one-on-one interview session between each participant and the researcher, at a mutually agreed upon public location or through a virtual video conference using Pepperdine University's Google Hangout. The targeted population for this exploratory qualitative research study was male or female graduate students currently enrolled in either a master's degree or doctoral degree hybrid learning format academic program in the Graduate School of Education and Psychology at Pepperdine University. The sample was drawn from a pool of interested students fitting the target population description who responded to participant request notices via online Sakai message postings and emails from the researcher (see Appendix A). The participant request notice informed the subjects of the researcher's identity, the title and purpose of the research study, the research method, participant eligibility requirements, and the data collection procedures that were used in the study.

In this qualitative research study, the purposeful sampling strategy was used to identify appropriate participants who could most aptly provide information regarding the problem being examined in the research study (Creswell, 2007). The purposeful sampling strategy involved

targeting a particular group of individuals that have actual experience with the phenomenon of interest (Creswell & Plano Clark, 2011). The literature recommended the use of eight to 15 interview participants to ensure rich data (Hill et al., 2005; Hill, Thompson, & E. Williams, 1997) in accord with the methodology of qualitative research (Miles & Huberman, 1994); therefore, the desired number of subjects for this research study was ten to 15 participants.

Presentation of Findings

The first two interview questions: "What is the name of the graduate academic program at Pepperdine University, Graduate School of Education and Psychology that you are currently enrolled in and what is your current program year?" and "Have you have previously engaged in a hybrid learning environment aside from your currently enrolled academic program at Pepperdine University, Graduate School of Education and Psychology? If so, please indicate where and when." helped the researcher to understand more about which Graduate School of Education and Psychology academic program each participant was part of at Pepperdine University and whether any of the participants had previously engaged in a hybrid learning environment.

A total of 22 individuals responded to the request to participate in this study. Of the 22 individuals, 11 individuals actually participated in the investigation. Eight of the 11 participants were second, third and fourth year doctoral level students from the Doctor of Education in Organizational Leadership (EDOL) program, the Doctor of Education in Educational Leadership, Administration, and Policy (ELAP) program, and the Doctor of Global Leadership and Change program. The remaining three participants were first year graduate students from the Master of Arts in Social Entrepreneurship and Change program.

Four participants out of the 11 total had never participated in a hybrid learning environment prior to their current academic program at Pepperdine University's Graduate School

of Education and Psychology. The remaining seven participants had previous experience in a hybrid learning environment at another institution of higher education other than Pepperdine University's Graduate School of Education and Psychology. Aliases were given to protect the confidentiality of the study participants. These participant demographics are displayed in Table 1 below.

Table 1

Participant Demographics

Total Number of GSEP Students Interested in Study Participation	Total Number of Actual Study Participants	Number of Participants Enrolled in Doctoral Level GSEP Academic Program	Number of Participants Enrolled in Master's Level GSEP Academic Program	Number of Participants With Previous Hybrid Learning Experience
22	11	8	3	7

Research Question 1: Perceptions of Knowledge Sharing

In this phenomenological research study, the overarching research question was: What are the perceptions of knowledge sharing among graduate students within hybrid learning environments? This research question sought to understand "the object of human experience" (Van Manen, 1990, p. 163) and "the importance of the individual experiences of people as conscious human beings" (Creswell, 2007, p. 236). As a preface to understanding the participants' perceptions of knowledge sharing within their hybrid academic cohorts, the interview question: "How would you describe what knowledge means to you?" was asked. Study participants provided a wide range of responses to this question suggesting that there is no clear and common definition of 'knowledge.' However, there seemed to be a theme related to information that is useful in some way. The table below summarizes the responses received from study participants (see Table 2 below).

Table 2

Participant Definition of Knowledge [Summarized]

Participant A	Knowledge is what you learn from others within your organizations, or groups or workshops
Participant B	Knowledge is shared learning; it is a transfer of some sort
Participant C	Knowledge is a place where two or more individuals are actually engaging in an ongoing discussion and when knowledge known is received and when knowledge unknown is retained
Participant D	Knowledge is information that you get from a classroom environment; it is information that you learn from others, that you share with others
Participant E	Knowledge means knowing something, ability to remember and use information that is useful for something; knowledge can be something that can be extrapolated from a piece of information
Participant F	Knowledge is everywhere and anything can be knowledge
Participant G	Knowledge is a collective of applicable and efficient ideas and information that can be used towards the bettering of one's everyday life
Participant H	Knowledge is what a person knows and what they can know through learning, through interactions with others, and through observation; knowledge can be self-acquired or taught and learned
Participant I	Knowledge is power; knowledge is the basis for how and why decisions are made
Participant J	Knowledge is a structure of information that has been learned and stored in the brain in a way that can be retrieved and applied successfully in different contexts
Participant K	Knowledge is information pertaining to an infinite number of subjects, skills, ideas, etc.; knowledge is acquired through everyday life experiences from birth, but can also be attained through voluntary research

Behaviors exhibited during knowledge sharing. Several of the interview questions that were asked sought to understand the behaviors exhibited during knowledge sharing amongst the graduate students. When participants were specifically asked to describe the behaviors that their academic cohort peers exhibited when they shared their knowledge within your academic cohort, their general responses were that there academic cohort peers are active, attentive listeners who provide feedback and act as team players. For example, one participant stated, "I believe the behaviors are very respectful, they were listening, being attentive, providing feedback and team

players." In addition, from another participant's perspective, "people get very excited when sharing new ideas and new knowledge. We can get new ideas from the other people's opinions and it is very dynamic and they're very positive and very energetic about it. We are eager to learn." Another participant indicated:

> They're glad to be able to help. They're glad to be able to share. I've never felt that somebody didn't want to, that somebody had a negative affect or behavior. The information seemed to be very collective. It was free, you know freely given to everybody…very happy to help people.

Additional responses from participants regarding their perceptions of the behaviors exhibited during knowledge sharing included that most peers behave in sync with each other and work as a whole rather than an individual if there is a healthy learning environment. As a participant stated, "in healthy academic cohorts most peers behave like working bees, leaving and returning with new knowledge (pollen) for the greater good and growth of the hive. They are in sync and work as a whole rather than an individual." Some responses indicated that the behaviors depend on the individual person, as some people may be more comfortable sharing knowledge than others. One participant felt that if the academic cohort connected more, then people may be more willing to share their individual knowledge and when a peer is willing to share knowledge with other group members, they are assertive and straightforward. As stated by the participant, "honestly, this depends highly on the individual person. If we are not relatable, he or she may not be as comfortable sharing knowledge. However, if we connect more, we may be more willing to share our individual knowledge. When a peer is willing to share knowledge with me or another group member, they are assertive and straightforward."

Most participants stated that they felt that their academic cohort peers did not hold back any relevant knowledge. When asked whether participants ever felt the need to hold back information or perceived classmates withholding information, responses included, "No." "I've never felt that way." "Not to my knowledge." "No, I think that we were very fortunate that we had a cohort that would work together and share information. I don't know if that is true with all cohorts, but I feel like we had a really great group of people that were interested in the success of the entire cohort so I don't feel that that was the case in our situation."

One participant felt that the reason that their academic cohort peers did not hold back relevant knowledge was due to the design of the program in which the academic cohort was expected to be collaborative. The participant initially laughed when asked this question and then responded by saying:

> During group projects I don't think that that was the case and obviously according to our program curriculum we were to be more of a group and collaborative more than as an individual effort. I think that during face-to-face there was definitely some 'reserve' I guess is the best way to put it, that occurred later in the program that came up. I don't know whether it is competitiveness, whether or not it was just lack of engagement or maybe just a group in the program that they just wanted to get it done. When we met face-to-face it was a lot of "gaps" and in silos or maybe everyone was just tired.

Four participants did feel as though some academic cohort peers held back knowledge either because they were reserved, the topic was too sensitive, or that they did so unconsciously or unintentionally. One participant described that some academic cohort peers held back knowledge by stating:

> I do feel that sometimes my peers hold back knowledge. I think this is not necessarily always a conscious decision, but sometimes innate. Some people hold back knowledge based on fear of being judged, ridiculed, etc. and others simply are selfish with their knowledge. As I mentioned, this may not always be intentional. However, no one can be forced to share knowledge, and the act of knowledge sharing is completely voluntary. We are encouraged to share, but I think holding back knowledge is inevitable among any group. That being said, I hope that the majority of my peers do share as much relevant knowledge as possible, and are willing to receive it the same.

Another participant responded in this manner:

> I don't think that I would say that they hold back relevant knowledge. They hold back, and I'll speak personally to this, we may hold back situations that we've been in if we feel that we could possibly, that our fellow classmates aren't ready to have that level of conversation. Some topics can be somewhat sensitive, you know. There are some topics that are really easy to talk about and then there are some topics that are not that easy to talk about. So in those cases we tend to hold back a little bit more than sometimes I wish we would.

All eleven participants indicated that they shared their knowledge with others in their academic cohort. Three participants mentioned that they also share knowledge that is not related to the program or coursework. One participant specified that they only share their knowledge when provoked to do so, such as another academic cohort peer asking them a direct question. The participant stated their response in this way:

> I definitely try to. Usually I only, I typically will only share my knowledge base if provoked so if there's some type of scenario or somebody has a question about something

> and I feel like I have information that might assist, be of assistance to them I most certainly will share and regardless of format, I can be either be on the phone, I will send them a very, very lengthy email, I will do anything, IM chat, it doesn't really matter but usually when I share information specifically from my ladder of influence, from my data set, it usually has to do with something that they've stated or some question they've post.

Another participant disclosed that they share knowledge primarily within their small learning sub group, but would also share with other members of the academic cohort who were outside of their subgroup. Additional descriptions that participants provided regarding their sharing of knowledge with academic cohort peers involved working on a group project or presentation, helping another academic cohort peer with their dissertation, and discussing job-related ideas and strategies. One participant mentioned that communication between academic cohort peers occurred on a regular basis, sometimes face-to-face and at other times using virtual communication tools. Another participant described having a preference to one-on-one conversations with their academic peers to share knowledge.

Two of the eleven participants divulged that they have held back relevant knowledge from their academic cohort peers for reasons such as time constraints, not wanting to seem as though they were not respecting the opinions of others, or feeling as if the knowledge to be shared may be considered too personal or opinionated by their academic cohort peers. One of the two participants stated:

> I think might be guilty to that sometimes. I might hold back…in the interest of time, in the interest of respecting people's opinions. I might hold back like maybe that's a little bit too personal, or maybe that's a little bit too opinionated, or maybe reserve this for another

time or group discussion, maybe not so much for such a formal class. But usually I don't hold back, if I do it's usually because I don't want to be too biased in my opinion.

The other participant voiced that they probably held back some knowledge in order to avoid group conflict because they felt as though it would be misinterpreted, not appreciated, or viewed negatively by their academic cohort peers. The participant also indicated that they were in fact a proponent of conflict between groups as long as the conflict is healthy and respectful. The participant expressed their perceptions by stating:

> Gosh, I probably held back some examples because I did not want to frighten them...talking about conflict in groups, it is seen quite negatively when it should not be seen negatively and I am a proponent of conflict between groups as long as it's healthy and respectful. This particular individual doesn't deal very well with conflict at all. So there were examples that I could have used that probably would have fit the situation that she was in better but I didn't go there because I didn't think that she would really appreciate or interpret them the way that I would have hoped that she would have interpreted them.

The remaining nine participants stated that they did not hold back relevant knowledge from their academic cohort peers at any time.

Four participants stated that they felt good when they shared their knowledge within their academic cohort. Some of the reasons detailed were because the purpose is to learn and to be able to disseminate their inquiries and perspectives, engage in self-reflection and meaningful, critical dialogue. Also included as to why they felt good when they shared their knowledge was that it helps them reinforce their own learning by being able to crystallize information in a way that helps make it easier to understand. They also stated that they felt good because they enjoyed

helping people and wanted to feel like a participant in the group. One of these four participants further explained their response as:

> It actually makes me feel good. It makes me feel stronger as an individual because I have information that's useful and is typically always greeted kindly and people are usually very appreciative of the feedback that I give. I also think when I communicate something from my own knowledge base, it also helps me to kind of re-center and refocus what I actually know. And sometimes you're so fixated on kind of very granular aspects of what we do every day we don't take in the totality of what our knowledge actually is so we surprise ourselves when we want to tell somebody else about something and we want to share something that we've done or share something that we've learned or share our experiences, we become shocked by it because we forget how much we actually do, we forget how much we actually know so I guess the surprise of it is exciting for me.

Another of these four participants elaborated their response of feeling good when they share their knowledge by stating:

> I feel good when I am able to share my knowledge. I feel that I am being a contribution, that I'm contributing to this group of people to keep the boat afloat, help keep it floating and I think, I'd like to think that my cohort feels the same way, that we're all kind of in this together and that we are all increasing each other's knowledge and our experiences.

Two participants described feeling empowerment of self and of others when sharing their knowledge within their academic cohort. The remaining participants described feelings of growth, enjoyment, and fulfillment. Some participants also indicated that they felt as if they were learning when they shared knowledge, while one participant specified that their feelings when sharing their knowledge depended upon the information that they were sharing.

Preferred ways to share knowledge. Participants described various ways in which they preferred to share their knowledge within their academic cohort, including face-to-face, virtual conferences, email, online portals, classroom group discussion, and presentations. Some participants indicated more than one preferred way to share their knowledge. One participant mentioned that when there are time restrictions then the academic cohort has to be open to email or other online tools. Two participants indicated that it did not really matter which way they shared their knowledge, with one participant specifying that it was a matter of what worked best for their schedules, and the other participant expressing that it was more important that be environment be safe and encouraging rather than the ways that they preferred to share their knowledge within their academic cohort (see Table 3).

Table 3

Participants' Most Preferred Way to Share Knowledge

Participant A	Face-to-Face
Participant B	No Preference
Participant C	Online Management Portals
Participant D	Face-to-Face
Participant E	Verbal Sharing
Participant F	Presentation or Online Chatting
Participant G	Academic Discussion
Participant H	Depends on Why Sharing Information
Participant I	Open Discussion
Participant J	Face-to-Face Group Discussion
Participant K	No Preference

Tools or methods useful in knowledge sharing. Participants were asked to describe what tools or methods, if any, that they found useful in sharing their knowledge during the interview. All eleven participants described a virtual tool or method as being useful in their sharing of knowledge. These virtual tools and methods included video conferencing and online communication via various apps. Most participants identified more than one tool or method that they believed to be useful in knowledge sharing. Some participants indicated that they preferred using Google apps, specifying Google Docs and Google Hangout, to share their knowledge stating that they found it useful because of the collaborative nature of the Google tools. One participant indicated, "The only tool needed to share knowledge is the mind. However, I also use technologies and legitimate sources to confirm the validity of what I share." A list of the tools or methods that participants stated in their responses as being useful in knowledge sharing are included in Table 4.

Table 4

Tools or Methods Useful in Knowledge Sharing

Charting/Flow Chart	X
Conference Calls	X
Email	X
Face-to-Face	X
Google Docs	XXXX
Google Hangout	XXX
Learning Management Portal	X
Mindmeister (Mindmapping)	XX
Phone	X
Presentation	X
Skype	XXXX
Slack	XX
Text	XX
The Mind	X
Visual/Verbal Enhancement	X
Webinars	X
WeChat	X

Motivators for knowledge sharing. There was a range of responses to the interview question seeking to know the factors or reasons that motivate the participants to share their knowledge. Some of the responses included that there is an expectation to share knowledge as an academic student. Eagerness to learn, both for self and to help others learn was also stated. One participant specified that a simple request to share knowledge is what motivated them to share their knowledge with others. Trust also emerged as a motivator for knowledge sharing.

The majority of the participants indicated that there are not times when they are more willing to share their knowledge than other times. Although, several participants did specify that they are less willing to share knowledge when time is an issue or if they feel tired or uncomfortable sharing their knowledge. For example, one participant stated "if time was taken out of the equation there are no limits to the amount of talking and listening I am prepared to do." Another participant stated "the only time I can imagine I would be less willingly to share is when I am not well and have little energy. I also may hold back if someone in my cohort is constantly asking for help but refuses to share equally with the group." A third participant indicated, "I'm more willing to share my knowledge with people who are going to be respectful to what I have to share and if I feel that people are going to simply dismiss what I have to say without considering it then I'm less likely to share." See Table 5 for the major motivators to knowledge sharing that participants indicated in their responses.

Table 5

Major Motivators to Knowledge Sharing

Being Part of an Academic Community	Request from Others	Return on Investment	Trust / Safe and Respectful Environment	Success of Group	Helping or Empowering Others	Reciprocal Learning
X	X	X	X	XX	X	XXXXXXX

One participant described what motivates them to share their knowledge in these words, "The possibility of the world becoming a utopia is directly embedded in the action of spreading knowledge until all beings become enlightened."

Barriers to knowledge sharing. The barriers that have prevented participants from sharing their knowledge according to their overall interview responses included time constraints, the perceptions of others, being tired, disagreements with others, and issues with technology. Participants described various reasons that they would not share their knowledge with someone in their academic cohort. As one participant described:

> I think the barrier that sometimes prevents me from sharing my knowledge is that I just speak out with passion and with truth and honesty and that sometimes holds me back because some people don't want to listen to what people have to say that is true.

Another participant voiced:

> Having intimidation or the instructor is on time and having respect for our time or wasn't biased. Maybe not wanting someone's feelings to you know probably get hurt or if I share something and it might lead to a different discussing and we might get off track but those are probably in the interest of time and respecting others' opinions and to avoid any kind of bias.

One of the participants responded by stating, "…one barrier would definitely be the perception of others…I don't mind if people disagree but just the dismissal of that contribution as being irrelevant." Another participant indicated:

> Aside from time, I honestly have to say a person's level of maturity because there are, I'm trying to think of a scenario right now. There are some very basic things that you can communicate as far as your own knowledge with another person but if a person does not,

> I don't necessarily feel that they have to share your level of maturity but they do have to be of a level of maturity to understand and properly interpret what it is you're trying to communicate so if I feel as though the person may not either have the maturity or the patience or the calmness to listen then I probably would not, I would not share at that point.

One of the participants stated:

> There are factors such as age, race, gender, class, etc. that will always have the potential to prevent me from sharing. I try not to focus on these factors or let them be barriers, but there are times when I do. For example, being outnumbered by the race (only minority in the room), I have a fear of peers being more critical to my delivery. Although this is not often a barrier, it can be.

See Table 6 for the major barriers to knowledge sharing that participants indicated in their responses.

Table 6

Major Barriers to Knowledge Sharing

Time Constraints	Perceptions of Others	Being Tired	Disagreement With Others	Issues With Technology
XX	XXXXX	XXX	XX	XX

Research Question 2: Knowledge Sharing During Group Discussions

The second research question in this study was: What have been the lived experiences of graduate students with regard to knowledge sharing during group discussions within hybrid learning environments? This research question aligns directly with the following interview question: Based on the definition of knowledge sharing that I have provided you for this interview, how would you describe the phenomenon of knowledge sharing during group

discussions in your academic cohort? In response to this interview questions, participants provided rich descriptions of their lived experiences with knowledge sharing in their hybrid academic cohorts. Some of the descriptions provided included how various platforms have been used for their communication. Four participants detailed their appreciation of the hybrid environment for group discussion due the flexibility of the structure such as the benefits of having the face-to-face aspect but also being able to use the virtual tools to recap and further review their group discussion topics.

Of the eleven participants, all but three indicated that their academic cohort peers also shared their knowledge with them and others in their academic cohort at times other than during group discussions. Most of the participants specified that when their academic cohort peers did share with them at times other than during group discussion that it was often related to group project work. This knowledge sharing, according to the study participants, occurred either face-to-face or virtually, usually virtually due to the geographical difficulties with meeting in person. See Table 7 for an overview of participants' perceptions of the phenomenon of knowledge sharing during group discussions within their academic cohorts.

Table 7

Participants' Perceptions of Knowledge Sharing During Group Discussions [Summarized]

Participant A	▪ Forms of knowledge sharing existed
Participant B	▪ Subgroups shared knowledge amongst themselves through collaboration, articulation of a common knowledge paper/collective paper via online collaboration tools
Participant C	▪ Hybrid environment appreciated ▪ Discussion was quick active thinking, have to be really dexterous with your learning, not much time to actually think about it or regurgitate the knowledge and then speak about it with your cohort ▪ Able to look at the online forums, look at what the students were asking in the comments section or in the general discussion board and then actually have 24-48 hours to think and reflect on the knowledge that was being shared
Participant D	▪ When cohort met, people were from various backgrounds and it was a great opportunity to share experiences with other people and to really learn from one another

(table continues)

Participant E	▪ Can look at each other's body language and kind of know who's thinking about what and say, "Oh someone thinks the same way that I think" or "I'll have an ally in this conversation" ▪ Virtually it's a little bit more difficult because can't read the body language or the verbal cues ▪ Virtual environmental allows for being more relaxed at home, can multitask and can look for more information online without seeming as if not engaged
Participant F	▪ Knowledge sharing is sometimes face-to-face, most of the time it's online chatting for idea exchanging ▪ Very flexible
Participant G	▪ The phenomenon of knowledge sharing during group discussions in academic cohort is like meiosis: when one person divulges knowledge the next person can feed and build on that creating a new bubble of understanding that continues to grow until a new life and existence of knowledge and understanding is created
Participant H	▪ Occurs via email, through text messages, video calls and phone conversations
Participant I	▪ Readily prepared and really honestly solidly looking to seek other people's experiences and other people's knowledge to be able to use that, to assimilate it to a certain degree to own experiences ▪ Seen as increasing own data sets ▪ Used lots of discussions and each other's knowledge bases to come up with deep critical thought
Participant J	▪ Learning partners met weekly ▪ Group effort guided and redirected by the professor as cohort worked together for understanding
Participant K	▪ Gaining information from peers and sharing information ▪ Knowledge has been obtained through cohort members' individual experiences, research, prior higher learning environments, etc.

Research Question 3: Knowledge Sharing and Overall Student Learning Experiences

In this qualitative study, the third research question was: What effects, if any, did the phenomenon of knowledge sharing have on overall student learning experiences for graduate students in hybrid learning environments? This research question aligned with the following interview question: What effects or impact, if any, does the phenomenon of knowledge sharing have on your overall learning experiences as a graduate student within a hybrid learning environment at Pepperdine University's Graduate School of Education and Psychology? Many participants described positive effects resulting from their lived experiences of knowledge sharing as a graduate student within a hybrid learning environment. Many of the participants also attributed the positive impact of knowledge sharing on their overall learning experiences as

being directly related to the hybrid learning format. See Table 8 on the following page for participants' perceptions of the effects that the phenomenon of knowledge sharing have on their overall student learning experiences in a hybrid learning environment.

Table 8

Participants' Perceptions of the Effects of Knowledge Sharing on Overall Student Learning Experiences in a Hybrid Learning Environment [Summarized]

Participant A	▪ Biggest learning was to be open, be flexible, and communicate in any form and in any way without having any restrictions to it. ▪ Hybrid learning has actually increased my ability to learn ▪ Learning to understand and listen and use different programs to develop knowledge and to share knowledge creates a bigger person in you
Participant B	▪ There is no way that the level of knowledge transfer in the program could occur without the hybrid solution ▪ Having a personal relationship, being able to spend the time to talk online with somebody…knowledge transfer...the experience level was in such varied degrees that it was really great to hear those perspectives and learn from that experience
Participant C	▪ Impact that it has on me is nothing but delightful ▪ Have to be a self-directed learner and you have to be very, very, very efficient with time management ▪ There is more dedication, more blood, sweat, and tears in a hybrid
Participant D	▪ Made me a better person ▪ Helped me see the world through a different lens, through a different perspective ▪ Really helped me to understand the educational system, the challenges, the opportunities that we have ▪ Really just heightened my awareness, will take forward in my educational career as well as my professional and personal life as well
Participant E	▪ Made me more aware of how strong that phenomenon makes a group of individuals ▪ Feel a sense of responsibility for the other people in your cohort instead of making the experience one of isolation and competition and so when I look back on my cohort days at Pepperdine, there really good ▪ I have good memories, good feelings of sitting in class for 8 hours but it was really positive feelings ▪ Classes that were not as collaborative were much more difficult because the instructions from the professor were to complete these assignments by yourself and to not be able to collaborate on the answers or how to approach the assignment was much more difficult versus being able to work with other students to create your product
Participant F	▪ Plays a very important role in my life ▪ Amazing
Participant G	▪ Phenomenon of knowledge sharing continuously motivates me every day and is the fuel to my drive and ambition towards finishing and receiving my degree in higher education ▪ Strengthens and encourages my confidence and makes me feel like I can understand complex concepts and ideas more easily ▪ Feel as though I have a community of alike peers that I can reach out to who understand and are willing to help me in difficult courses
Participant H	▪ Helps deepen understanding of the topics being presented to me by the professor as well as encouraged the further development of my social skills

(continued)

Participant I	▪ Definitely made me a stronger professional ▪ Growing in areas that I had not anticipated that I would grow ▪ The growth is probably the biggest area for me, personal growth
Participant J	▪ Feel very connected to the people that I have learned with through this experience and I feel like they are still my learning partners ▪ Can still reach out to them to work through a problem or a theory ▪ Have very positive memories of this experience ▪ Biggest impact: the process of learning and the ongoing support group
Participant K	▪ Phenomenon of knowledge sharing not necessarily a new concept to me, but to have it applied within the classroom and in study, is extremely encouraging and helpful ▪ Entire foundation of education is built on knowledge sharing ▪ As long as the phenomenon is properly encouraged and maintained, it can only be a benefit to everyone in the hybrid learning environment

Summary of Key Findings

The purpose of this qualitative phenomenological research study was to understand the lived experiences of Pepperdine University's Graduate School of Education and Psychology students in regards to their perceptions of knowledge sharing within their hybrid learning academic cohorts. This chapter provided information about the participants' perceptions of the phenomenon under investigation. Eleven one-on-one, in-depth interviews were completed during the data collection period which produced rich description of the phenomenon being studied. The chapter also provided a review of the research questions, overview of the study design, presentation of findings, and emerging themes.

There were recurring themes from the data in terms of knowledge sharing motivators, knowledge sharing barriers, knowledge sharing behaviors, and the impact on knowledge sharing on overall learning experiences. Emerging themes from the transcribed interviews as to motivators for knowledge sharing included: being part of an academic community, a request from others, return on investment, trust and a safe, respectful environment, the success of the group, desire of helping or empowering others, and reciprocal learning. In regards to barriers to knowledge sharing, emerging themes included participants specifying: time constraints,

perceptions of others, being tired, disagreement with others or issues with technology. The participants perceived that knowledge sharing behaviors were mostly inclusive of active listening by academic cohort peers, expectations for being collaborative academic cohort peers, and having the desire to learn. Participants perceived that their overall learning experiences as a graduate student within a hybrid learning environment has been positively and beneficially impacted by knowledge sharing and that it has made them stronger. In the final chapter, Chapter Five, a discussion on the key findings, conclusions, and recommendations for further study will be presented.

Chapter Five: Conclusions and Recommendations

> Sharing knowledge is not about giving people something, or getting something from them…sharing knowledge occurs when people are genuinely interested in helping one another develop new capacities for action; it is about creating learning processes.
>
> – Peter Senge

Introduction

This chapter offers discussion of the findings that emerged from this research. The discussion will first review the study problem, study purpose, research questions, and study design overview. Following this introduction will be a discussion of the key findings, conclusions, implications for policy and practice, recommendations for further study and a summary.

Restatement of the Study Problem

As knowledge sharing is considered a cardinal element in the process of learning, it is necessary that in its efforts to support and advance student learning, higher education adequately understand its students' perceptions of knowledge sharing and the impact, if any, of knowledge sharing practices and behavior on student learning experiences. Previous studies on knowledge sharing have mostly examined organizational settings, however, information is considerably minimal in specific regard to the knowledge sharing practices and behaviors of individuals enrolled in hybrid format master's and doctoral degree academic programs. Therefore, a need exists to explore perceptions of knowledge sharing of graduate students within hybrid learning environments.

Restatement of the Study Purpose

The purpose of this phenomenological investigation was to explore perceptions of knowledge sharing among graduate students within hybrid learning environments. This qualitative research study sought to examine the lived experiences of higher education students

currently enrolled in hybrid (part face-to-face and part online) academic programs at a private university in attempt to understand knowledge sharing activities and behaviors that occur between graduate student peers within a hybrid academic program cohort. The study sought to provide an authentic insight into the perspectives of participants who have firsthand experience with the phenomenon of this investigation.

Restatement of the Research Questions

In this phenomenological research study, the overarching research question was: What are the perceptions of knowledge sharing among graduate students within hybrid learning environments? Additional research questions included: What are the lived experiences of graduate students with regard to knowledge sharing during group discussions within hybrid learning environments? What effects, if any, does the phenomenon of knowledge sharing have on overall student learning experiences for graduate students within hybrid learning environments? The research questions in this investigation sought to understand "the object of human experience" (Van Manen, 1990, p. 163) and "the importance of the individual experiences of people as conscious human beings" (Creswell, 2007, p. 236).

Overview of the Study Design

In this research study, a qualitative design was applied in an effort to uncover phenomenological data pertaining to the research topic being explored. A qualitative methodology focuses on understanding how individuals interpret and describe their lived experiences of a particular phenomenon (Burrell & Morgan, 1979; Creswell, 1994, 2003; Creswell & Plano Clark, 2006). Qualitative research design is an inquiry process that seeks to explore a human problem or a social problem in which the researcher builds a holistic picture, analyzing and reporting the views of the participants providing information (Creswell, 1998).

The qualitative methodology applied in this research study allowed themes and categories to emerge from the participants' descriptions of knowledge sharing. The qualitative inquiry process in this study included audio recording and analyzing collected data from subjects in an attempt to grasp a deeper meaning of the lived experience, including the behaviors, beliefs, and emotions of the participants. A qualitative research design was an appropriate methodology for this study because the goal was to explore the perceptions of graduate students in hybrid learning environments through their in-depth descriptions of their lived experiences related to the phenomenon.

The interpretive paradigm, which views the world throughout emergent and subjective processes (Burrell & Morgan 1979), was identified for the framework of the study. The researcher's role in the qualitative design of this study was important, therefore, the researcher's bias regarding knowledge sharing in hybrid learning environments was pointed out as a component of the research study (Burrell & Morgan, 1979; Creswell, 1994, 1998; Kvale, 1996; Patton, 1990). Any potential bias on the part of the researcher was addressed by using methods to establish validity and trustworthiness.

To establish validity and trustworthiness in this research study, respondent validation and bracketing was used (Lincoln & Guba, 1985). The use of respondent validation allowed for ensuring the accuracy of data transcription and interpretation, which entails revisiting the collected data and interpretations with to the individual participants of the study in order for them to affirm the credibility and authenticity of the data and their personal narrative account (Creswell & Miller, 2000). During the course of the phenomenological investigation, bracketing was used in which the researcher was required to deliberately cast away her own belief about the phenomenon being investigated or what she already knows about the topic (Carpenter, 2007).

The specific circumstances involving the setting and context for the research study included a one-on-one interview session between each participant and the researcher, at a mutually agreed upon public location or through a virtual video conference using Pepperdine University's Google Hangout. The targeted population for this exploratory qualitative research study was male or female graduate students currently enrolled in either a master's degree or doctoral degree hybrid learning format academic program in the Graduate School of Education and Psychology at Pepperdine University. The sample was drawn from a pool of interested students fitting the target population description who responded to participant request notices via online Sakai message postings and emails from the researcher (see Appendix A). The participant request notice informed the subjects of the researcher's identity, the title and purpose of the research study, the research method, participant eligibility requirements, and the data collection procedures that were used in the study.

In this qualitative research study, the purposeful sampling strategy was used to identify appropriate participants who could most aptly provide information regarding the problem being examined in the research study (Creswell, 2007). The purposeful sampling strategy involved targeting a particular group of individuals that have actual experience with the phenomenon of interest (Creswell & Plano Clark, 2011). The literature recommended the use of eight to 15 interview participants to ensure rich data (Hill et al., 2005; Hill, Thompson, & E. Williams, 1997) in accord with the methodology of qualitative research (Miles & Huberman, 1994); therefore, the desired number of subjects for this research study was ten to 15 participants. In this qualitative study, there were a total of 11 participants.

Discussion of Key Findings

Research question 1: Perceptions of knowledge sharing. In this phenomenological research study, the overarching research question was: What are the perceptions of knowledge sharing among graduate students within hybrid learning environments? This research question sought to understand "the object of human experience" (Van Manen, 1990, p. 163) and "the importance of the individual experiences of people as conscious human beings" (Creswell, 2007, p. 236). The key findings associated with Research Question 1 emerged as the following themes: (a) Knowledge is Shared Learning; (b) Preferred Conditions Best Facilitate Knowledge Sharing; (c) The Concept of Reciprocal Learning Motivates Knowledge Sharing; and (d) Perceptions of Others Is a Barrier to Knowledge Sharing.

Theme 1: Knowledge is shared learning. Participants were asked to describe what knowledge is. A key finding based on participants' definition of knowledge is that knowledge is shared learning (see Table 2). The finding might be due to the concept of androgogy in that adults enter a learning environment with an accumulated set of experiences that becomes a profound asset for learning (Knowles, 1980, 1984; Knowles et al., 1998). These experiences that adults bring into a learning situation are a valuable resource for learning and provide a richer meaning when attached to new ideas and skills (Knowles, 1996). Further, adult learning utilizes knowledge and life experiences by encouraging collaboration and acknowledgement of the adult learner's contributions. This may mean that adult learners value the opportunity to learn in a shared manner.

Several of the interview questions that were asked sought to understand the behaviors exhibited during knowledge sharing amongst the graduate students. Supporting the finding that knowledge is shared, participant responses included that academic cohort peers generally did not

hold back relevant knowledge and that when sharing knowledge they exhibited behaviors such as being active, attentive listeners and team players. Additional descriptions that participants provided regarding their sharing of knowledge with academic cohort peers involved working on a group project or presentation, helping another academic cohort peer with their dissertation, and discussing job-related ideas and strategies.

Most participants stated that they did not hold back relevant knowledge from their academic cohort peers at any time. Several participants stated that they felt good when they shared their knowledge within their academic cohort because they enjoyed helping people and feeling like a participant in the group. Participants also indicated that their purpose is to learn, to disseminate their inquiries and perspectives, and to engage in self-reflection and meaningful, critical dialogue. Thus, knowledge sharing helps them reinforce their own learning by being able to crystallize information in a way that helps make it easier to understand. According to H. Clark & Brennan (1991), knowledge sharing can facilitate efficient interactions and involves sharing collective beliefs, assumptions, and knowledge as reflected in the participants' responses.

Theme 2: Preferred conditions best facilitate knowledge sharing. Participants were asked to describe ways in which they preferred to share their knowledge within their academic cohort. Based on the variety of participant responses, the findings indicate that participants will share their knowledge when their preferred conditions exist. Overall participant responses included face-to-face, virtual conferences, email, online portals, classroom group discussion, and presentations. Some participants indicated more than one preferred way to share their knowledge (see Table 3). All eleven participants described a virtual tool or method as being useful in their sharing of knowledge with most participants identifying more than one tool or method that they

believed to be useful in knowledge sharing. Google Docs, Google Hangout, and Skype were the most favored virtual tools named by participants as useful for knowledge sharing (see Table 4).

Literature indicates that "whether it is easy, or not, to share knowledge depends on the method by which potential knowledge contributors contribute" (Hall, 2001b, p. 18). Empirical studies identify the technology acceptance model as one of several main categories associated with knowledge sharing (Gray, 2004; Jarvenpaa & Staples, 2000; Teigland & Wasko, 2004).

The technology acceptance model states that the selected mode of technology needs to first be accepted by the members for use. Research found that a perceived ease of use had a considerable effect on people's attitudes toward using a technology (Davis, 1993). Perceived ease of use is described as "the degree to which an individual believes that using a particular system would be free of physical and mental effort" (p. 477). Further, researchers have indicated that the easier the use of technology is for individuals and the less effort that is needed, then the more likely the possibility that individuals will use technology to share their knowledge (Constant et al., 1994; Jarvenpaa & Staples, 2000). Additional responses from participants regarding their perceptions of knowledge sharing included that "most peers behave in sync with each other and work as a whole rather than an individual if there is a healthy learning environment." As a participant stated, "in healthy academic cohorts most peers behave like working bees, leaving and returning with new knowledge (pollen) for the greater good and growth of the hive. They are in sync and work as a whole rather than an individual." These responses correlate with the concept of collectivism, which refers to advancing the community (Wasko & Faraj, 2000) or boosting the benefit of a group (Batson, 1994; Batson et al., 2002).

Further specified in some participant responses was that it did not really matter which way they shared their knowledge, it was a matter of what worked best for their schedules and

that it was more important that be environment be safe and encouraging rather than the ways that they preferred to share their knowledge within their academic cohort. Other participants indicated that if the academic cohort "connected more", then people may be more willing to share their individual knowledge and that if academic cohort peers are not relatable, then others may not feel comfortable sharing knowledge. Further, participant responses included that some people hold back knowledge based on fear of being judged or ridiculed, others simply are selfish with their knowledge, or that some conversations or topics can be somewhat sensitive.

These findings suggest a relation to perceptions of trust. Research has examined perceptions of trust and the significance of trust for the sharing of knowledge (Gairín-Sallán et al., 2010). Empirical evidence suggests developing a centralized group of people to nurture trust and knowledge sharing (Chiu et al., 2006; Wasko & Faraj, 2005).Therefore, the study findings may mean that participants' preferred ways of sharing knowledge is more associated with whether they perceive the environment to feel safe and comfortable, which may include certain tools and methods that are favored for using to share their knowledge.

Theme 3: Reciprocal learning motivates knowledge sharing. There was a range of responses to the interview question seeking to know the factors or reasons that motivate the participants to share their knowledge. Interestingly within the study findings, trust was not indicated by participants as the major motivator for knowledge sharing although research has demonstrated that trust is a strong antecedent to successfully facilitating interdependence, collaboration, purposeful discussions, and knowledge sharing activities within learning communities (Andrews & Lewis, 2002; Ardichvili et al., 2003; Bryk & Schneider, 2002; Chiu et al., 2006; Clausen et al., 2009; Hipp, Huffman, Pankake, & Olivier, 2008; Hsu et al., 2007; McMahon et al., 2005; Sztajnet al., 2007; Tschannen-Moran & Hoy, 2000; Usoro et al., 2007).

Rather, reciprocal learning emerged as a major response to what participants believe motivates knowledge sharing (see Table 5).

Participant responses included that there is an expectation to share knowledge as an academic student. Eagerness to learn, both for self and to help others learn was also stated. The majority of the participants indicated that there are not times when they are more willing to share their knowledge than other times. Although, several participants did specify that they are less willing to share knowledge when time is an issue or if they feel tired or uncomfortable sharing their knowledge. For example, one participant stated "if time was taken out of the equation there are no limits to the amount of talking and listening I am prepared to do."

Accordingly, the concept of reciprocal learning as a knowledge sharing motivator emerged as a theme. One of the responses in which the theme of reciprocal learning as a motivator for sharing knowledge became evident was "the only time I can imagine I would be less willingly to share is when I am not well and have little energy. I also may hold back if someone in my cohort is constantly asking for help but refuses to share equally with the group." Another interesting quote from a participant reflecting reciprocal learning as a knowledge sharing motivator was "the possibility of the world becoming a utopia is directly embedded in the action of spreading knowledge until all beings become enlightened."

In spite of trust being related to effectual knowledge sharing in both in-person and digital settings (Ridings et al., 2002; M. Young & Tseng, 2008), knowledge sharing practices are regarded as individual, voluntary behaviors that are motivated by reciprocity (Ma & Yuen, 2011). When reciprocity occurs, individuals may trust one another to share personal thoughts and information causing successful knowledge sharing to take place (Hsu & Lin, 2008; Ridings et al., 2002). These findings may mean that participants feel that it is important that the learning that

derives from knowledge sharing is a reciprocated effort between themselves and their academic cohort peers.

Theme 4: Perceptions of others is a barrier to knowledge sharing. Participants were asked to describe the barriers that have prevented them from sharing their knowledge. According to participants' overall interview responses, time constraints, being tired, and issues with technology emerged as barriers to knowledge sharing. However, the most prevalent response was the perceptions of others (see Table 6). Participants described various reasons that they would not share their knowledge with someone in their academic cohort in terms of their perceptions of their academic cohort peers. Specifically, participants indicated that some people don't want to listen to what the participant believes they are truthfully saying to others, feelings of intimidation or lack of respect by others, feeling as though others are biased, not wanting to hurt someone else's feelings, seeming as if they are disrespecting another person's opinions, feeling as though others' maturity level is not up to par or that they do not contribute equally, and fear of peers being more critical due to the participant's race (being the only minority). One participant explicitly stated "…one barrier would definitely be the perception of others…I don't mind if people disagree but just the dismissal of that contribution as being irrelevant."

Barriers to knowledge sharing can be viewed as factors that curtail motivation (Dornyei, 2001; Falout & Maruyama, 2004). In this research study, knowledge sharing barriers were described as conditions that diminish or decrease the behavioral intention of an individual to donate or share knowledge. Past empirical studies demonstrate that a number of barriers can impede individuals from sharing their knowledge. One of the barriers identified in the literature is an absence of feeling affiliated with the community (Gray, 2004).

The concept of community is also involved in the determination of whether people desire to share their knowledge with others. Gray's finding suggested that some people are hesitant to contribute knowledge because they perceived a limited identification with the community. Gray's work postulates that people with weak sense of belonging to the community do not contribute their knowledge as much as those with a stronger sense of membership (Gray, 2004).

Similarly, Wasko and Faraj found that some community members had no desire to contribute their knowledge due to perceived negative egos and attitudes of certain members who attack the ideas of others. As explained by Wasko and Faraj, negative attacks on people's ideas can destroy their willingness to share personal knowledge because knowledge is a crucial aspect of an individual's own self-image and self-efficacy. Likewise, an individual's own attitude can also be a barrier to knowledge sharing. An individual's personal attitude may be that they only help those people who first try to help themselves and not when it makes them feel as if that person just wants someone else to do their work for them (Wasko and Faraj, 2000). These findings may mean that participants believe that their perceptions of others in relation to their sharing knowledge impacts whether they actually do share their knowledge with others or not. These findings may also be correlated to participants' overall sense of belonging to the community and their own attitudes about sharing knowledge.

Research question 2: Knowledge sharing during group discussions. The second research question in this study was: What have been the lived experiences of graduate students with regard to knowledge sharing during group discussions within hybrid learning environments? The key findings associated with Research Question 2 emerged as the following themes: (a) Knowledge Sharing Occurs Both Virtually and Face-to-Face, and (b) Knowledge Sharing Allows for Learning from Others' Experiences.

Theme 1: Knowledge sharing occurs both virtually and face-to-face. Participants were asked to describe their perceptions of knowledge sharing during group discussions. In response, participants provided rich descriptions of their lived experiences with knowledge sharing within their hybrid academic cohorts. Nearly all participants indicated that their academic cohort peers shared their knowledge with them and others in their academic cohort at times other than during group discussions. Most of the participants specified that when their academic cohort peers did share with them at times other than during group discussion that it was often related to group project work. This knowledge sharing, according to the study participants, occurred either face-to-face or virtually (see Table 7). Therefore, based on these responses from participants, a theme that emerged in the findings was that knowledge sharing occurs both virtually and face-to-face as demonstrated by the literature.

The literature indicates that although the occurrence of knowledge sharing manifests in multiple ways, it most frequently takes the form of group discussions which occur via in-person conversations and through the means of virtual technology. Group discussions are facilitated to stimulate students to question, synthesize, and advance their present knowledge by extensively interacting with other discussion group members (Garrison et al., 2001). Further, group discussion channels cognitive thinking through explaining, questioning, and clarifying ideas. It is through such cognitive processes that learners generate new knowledge (A. Brown & Palinscar, 1989; Gunter & Thomson, 2007; Jonassen et al., 1995; Norman, 1993). Contrarily, other empirical studies have suggested that engagement in student group discussions does not invoke critical thinking and is seldom cultivated into deeper communication that leads to the creation of new knowledge (Tallent-Runnels et al., 2006).

The research findings are intriguingly in alignment with both sets of empirical studies in that some participants did describe the phenomenon of knowledge sharing during group discussions in their academic cohort as engagement in active thinking and deep critical thought. One participant described the phenomenon of knowledge sharing during group discussions in their academic cohort to that of "meiosis: when one person divulges knowledge the next person can feed and build on that creating a new bubble of understanding that continues to grow until a new life and existence of knowledge and understanding is created."

Since most participants described their perceptions of knowledge sharing during group discussions as to it occurring virtually and face-to-face, these findings may mean that the group discussions did not always lead to deep critical thought from the perception of some participants. It may also mean that some participants viewed group discussion more from the perspective of whether it occurred in a virtual manner or in person since some participants detailed their appreciation of the hybrid environment for group discussion due the flexibility of the structure, having the face-to-face aspect and also the virtual tools to further review their group discussion topics. These findings may suggest that some participants found the flexibility aspect of group discussions more important in regards to their knowledge sharing.

Theme 2: Knowledge sharing allows for learning from others' experiences.

Participants also described group discussions within their academic cohort as an opportunity to share experiences with and learn from others from various backgrounds. Participant responses also included seeking other cohort peers' experiences and knowledge to be able to use and assimilate it to a certain degree to their own experiences. Participants felt as if knowledge was obtained through cohort members' individual experiences and that they used it to increase their

own knowledge bases (see Table 7). As a result, a theme that emerged from the findings is that knowledge sharing allows for learning from others' experiences.

These findings correspond with the literature whereas the most abundant resources for collaborative adult learning dwell within the adult learners themselves because adult learners enter learning environments with a mass of valuable experience (Knowles, 1980, 1984; Knowles et al., 1998, 2014). The accumulated set of diversified experiences that adult learners possess enhances problem solving and group discussions. Therefore, methods such as group discussions that tap into their experience allows for adults to learn more effectively (Knowles, 1980).

Research question 3: Knowledge sharing and overall student learning experiences.

In this qualitative study, the third research question was: What effects, if any, did the phenomenon of knowledge sharing have on overall student learning experiences for graduate students in hybrid learning environments? The key findings associated with Research Question 3 emerged as the following themes: (a) Knowledge Sharing Benefits Overall Student Learning Experiences and (b) Hybrid Learning Environments Support Knowledge Sharing.

Theme 1: Knowledge sharing benefits overall student learning experiences.

Participants were asked what effects or impact, if any, does the phenomenon of knowledge sharing have on their overall learning experiences as a graduate student within a hybrid learning environment at Pepperdine University's Graduate School of Education and Psychology. Many participants described positive effects resulting from their lived experiences of knowledge sharing in that it helped them "see the world through a different lens, through a different perspective" and it heightened their awareness. Some responses also explicitly indicated that the experience was "amazing", "delightful" and gave them "positive feelings". One participant stated, "The phenomenon of knowledge sharing continuously motivates me every day and is the

fuel to my drive and ambition towards finishing and receiving my degree in higher education" (see Table 8). These findings may mean that participants found knowledge sharing to be useful and beneficial to their personal growth and learning experiences as a graduate student.

Based on the study findings, participants may view themselves as lifelong learners who, as indicated by the literature, value learning that is acquired through shared experiences and interaction with others (Bagnall, 2009). In addition, research identifies knowledge sharing as a mechanism for advancing student learning (Petrides & Nodine, 2003), which pertains to the activities or behaviors involving the spread of knowledge between individuals (Jalal, Toulson, & Tweed, 2010) and the willingness of those individuals to share their knowledge with each other (Gibbert & Krause, 2002). Further, research has demonstrated that when students are allowed to work collectively to achieve solutions for team projects and perceive different ideas, they can learn more effectively (Johnson & Johnson, 1999) as knowledge sharing requires people to disseminate their existent knowledge and also build knowledge by using critical thinking, explanation, clarification, and reflection from diverse perspectives. This may mean that the phenomenon of knowledge sharing contributed to participants' perceptions of positive overall student learning experiences.

***Theme 2: Hybrid learning environments support knowledge sharing*.** The findings indicated that many of the participants also attributed the positive impact of knowledge sharing on their overall learning experiences as being directly related to the hybrid learning format (see Table 8). Participant responses included statements regarding the flexibility of learning in a hybrid format program. For example, participants described the depth of their learning experiences by stating, "Hybrid learning has actually increased my ability to learn" and "There is more dedication, more blood, sweat, and tears in a hybrid." One participant specifically stated,

"There is no way that the level of knowledge transfer in the program could occur without the hybrid solution." Therefore, a theme that emerged from these findings was hybrid learning environments support knowledge sharing.

In correlation to the findings, research indicates that hybrid learning environments promote higher level thinking in adult learners and permit greater opportunity to construct learning by incorporating knowledge and relevant life experiences (M. Knowles, 1996) and describes hybrid learning as a "harmonious balance between online access to knowledge and face-to-face human interaction" (Rovai & Jordan, 2004, p. 24). Additionally, empirical studies demonstrate that hybrid learning environments build upon the strengths of the in-person classroom while providing the flexibility of digital learning through the use of educational technology and collaborative activities during group interaction which can enhance student learning (Alavi et al., 1997; E. Williams, Duray, & Reddy 2006). Existing research also provides general evidence of positive perceptions of hybrid learning environments (Garnham & Kaleta, 2002; Koch, 1998; Kym, 2005; Vaughan, 2004) and that hybrid learning environments potentially promote inquiry among learners.

The study findings may mean that knowledge sharing is fostered among graduate students participating in higher education activities because of the variety of instructional approaches, resources, experiences, and flexibility that hybrid learning environments incorporate. Moreover, research asserts that hybrid learning environments have a great potential for situated, authentic learning (Spilka, 2002) and therefore, the study findings may also mean that as a result of knowledge sharing occurring within the hybrid learning environments, authentic learning to reflect the way the knowledge will be used in real-life is evidenced.

Conclusions

The results of this study suggest that successful knowledge sharing is dependent on the nature of the interactions within the learning environment. It appears that preferred conditions, such as the existence of a safe, respectful environment and the flexibility of being able to interact both virtually and face-to-face, affected the degree of knowledge sharing amongst graduate students within their academic cohorts. In alignment with existing research, knowledge sharing depends on the methods by which knowledge is contributed by said knowledge contributors (Hall, 2001b). The results further suggest that hybrid learning environments support knowledge sharing. Additionally, the results suggest that when the concept of shared, reciprocal learning was evident amongst graduate students then greater degrees of knowledge sharing occurred. The results also suggest that knowledge sharing is beneficial to overall student learning experiences and that learning from other cohort peers' experiences was a valuable aspect of knowledge sharing.

Furthermore, the results suggest that the perception of others had an impact the phenomenon of knowledge sharing within the hybrid learning environment. This may imply that trust does indeed impact the way people perceive that others will receive them although the study findings did not indicate trust as a major factor for whether knowledge is shared or not. This may be due to the difficulties in defining trust as Tschannen-Moran and Hoy (2000) noted that "trust has been difficult to define because it is a complex concept…trust is a multi-faceted construct, which may have different bases and degrees depending on the context of the trust relationship" (p. 551). Zand (1997) further asserts that trust is quite complex and consists of one's willingness to allow his/her vulnerability to another individual whose behavior is unable to be controlled.

Based on empirical studies and key study findings, participants may have felt that their vulnerability with others in their academic cohort was compromised at times, which affected

successful facilitation of knowledge sharing. This corroborates with the literature in that research has demonstrated that trust is a strong antecedent to successfully facilitating collaboration, purposeful discussions, and knowledge sharing activities within learning communities (Andrews & Lewis, 2002; Ardichvili et al., 2003; Bryk & Schneider, 2002; Chiu et al., 2006; Clausen et al., 2009; Hipp, Huffman, Pankake, & Olivier, 2008; Hsu et al., 2007; McMahon et al., 2005; Sztajn et al., 2007; Tschannen-Moran & Hoy, 2000; Usoro et al., 2007).

Conjointly, the research and study findings infer that building a climate of trust is a critical factor in shaping a knowledge sharing atmosphere (Tschannen-Moran, 2001) and that knowledge sharing and trust are processes which are mutually reinforcing of one another (Fang & Chiu, 2010; Lin & Lee, 2006; Ridings et al., 2002; Usoro et al., 2007). Benevolence is an aspect of trust that assures that a person's welfare will be safeguarded and unharmed by the party who is trusted (Baier, 1986; Bradach & Eccles, 1989; Butler & Cantrell, 1984; Cummings & Bromiley, 1996; Deutsch, 1958; Gambetta, 1988; Hosmer, 1995; Hoy & Kupersmith, 1985; Hoy & Tschannen-Moran, 1999; Mishra, 1996; Zand, 1971). These trust relationships based on the concept of benevolence, are necessary to assure that individuals will not exploit another individual's vulnerability even when the chance to do so exists (Cummings & Bromiley, 1996) and would alter the perceptions of others that participants indicated as a major barrier to their knowledge sharing. Therefore, it can be inferred that building an atmosphere of benevolence is the basic foundation for encouraging and increasing knowledge sharing (Kankanhalli et al., 2005).

Implications for Policy and/or Practice

The findings in this research demonstrate the need for higher education institutions to give consideration to the development of strong, trust relationships amongst graduate students

when designing hybrid learning academic programs. While the aspect of trust was not an area of focus in this study, the value of knowledge sharing was. This research demonstrates that individuals value meaningful knowledge when in the context of reciprocal learning within a safe, respectful, and flexible environment. The missing element in this mix is ensuring that the trust relationships established between academic cohort members is sufficiently strong and solid that no gaps in knowledge sharing exists among graduate students within their hybrid learning environments.

As indicated in the analysis, individuals are motivated to share their knowledge dependent on their perceptions of being in an environment of shared learning and their perceptions of others within that environment. With that being said, it is genuinely up to the individual whether they will share their valuable knowledge with others or not. However, a higher educational institution can certainly employ motivational factors that will enhance such knowledge sharing by seeking to increase the ways that it shapes the development of trusting relationships between its graduate students at the onset. For example, ensuring sufficient community building opportunities through intentional activities early in the academic program as part of the orientation process might be considered by institutions of higher education.

This investment may deem beneficial in increasing overall student learning experiences, ultimately developing and producing individuals who are skilled, knowledge sharing leaders for the 21st century. This may occur through intentional methods inclusive of androgogical principles and the concept of benevolence in order to further conciliate the extent to which individuals feel effectual social affiliation towards each other (Ardichvili, 2008; Ridings et al., 2002) which are clearly articulated during the student onboarding process and throughout the duration of the academic program. In addition, higher education institutions may consider

providing in-depth training and continued support to ensure that incoming students are comfortable with using key technology-based modes of knowledge sharing such as Google apps.

Recommendations for Further Research

This study could be improved upon if replicated by investigating the design and development of learning environments which maximize the condition of knowledge sharing within hybrid learning environments. More specifically, how to design a hybrid academic program that uses specific strategies to promote a high level of relational trust combined with a high degree of community belonging and cohesion. Such an environment will facilitate knowledge sharing amongst graduate students within a hybrid learning environment. Further research might also be improved by examining the role of course professors in relation to the ongoing development and support of benevolence amongst graduate students and facilitation of knowledge sharing activities. Such continued guidance may help to retain the focus on the value of knowledge sharing to enhance learning within the hybrid learning environment and serve as a reminder that the academic program is one based on shared, reciprocal learning.

Future studies that might contribute to the field may include assessing the performance of knowledge sharing within hybrid learning environments in relation to actual student learning outcomes. Specifically, future studies may focus on knowledge sharing within hybrid learning environments in higher education as scholars have previously studied knowledge sharing behaviors in corporate environments (Hendriks, 1999; Nelson & Cooprider, 1996; Wasko & Faraj, 2005). This may lessen the gap in existing research that seeks to understand the adult student's perceptions of knowledge sharing behaviors within hybrid learning environments in higher education.

In this research study, the perception of knowledge sharing experiences was measured by participant responses. In future studies, appropriate assessment strategies might be developed to evaluate the quality and effectiveness of knowledge sharing activities amongst graduate students within hybrid learning environments. Another recommendation for further research may include studying academic cohorts that experienced a robust orientation process including intentional community building activities versus academic cohorts that did not. This may also be extended to include undergraduate level students. In addition, this study was limited to the Graduate School of Education and Psychology (GSEP) at Pepperdine University, therefore, future research may include conducting similar studies at other schools of Pepperdine University or other institutions of higher education.

Summary

The study explored the perceptions of knowledge sharing among graduate students within hybrid learning environments. This qualitative research study examined the lived experiences of higher education students currently enrolled in hybrid (part face-to-face and part online) academic programs at a private university in attempt to understand knowledge sharing activities and behaviors that occur between graduate student peers within a hybrid academic program cohort. The study sought to provide an authentic insight into the perspectives of participants who have firsthand experience with the phenomenon of this investigation. The specific problem was around knowledge sharing being considered a cardinal element in the process of learning and that within the necessity of its efforts to support and advance student learning, higher education adequately understand its students' perceptions of knowledge sharing and the impact, if any, of knowledge sharing practices and behavior on student learning experiences, particularly within hybrid learning environments.

The study results demonstrated that perception of others and the concept of reciprocal learning had a direct relationship with knowledge sharing and appeared to be the strongest factor affecting knowledge sharing amongst graduate students within a hybrid learning environment. The results of this study support empirical studies in that relational trust and hybrid learning environments have a positive impact on knowledge sharing. In addition, eight themes emerged as a result of the key findings of this study:

- Knowledge is Shared Learning
- Preferred Conditions Best Facilitate Knowledge Sharing
- The Concept of Reciprocal Learning Motivates Knowledge Sharing
- Perceptions of Others Is a Barrier to Knowledge Sharing
- Knowledge Sharing Occurs Both Virtually and Face-to-Face
- Knowledge Sharing Allows for Learning from Others' Experiences
- Knowledge Sharing Benefits Overall Student Learning Experiences
- Hybrid Learning Environments Support Knowledge Sharing

Based on the key findings of the study, further research is recommended.

Share your knowledge. It is a way to achieve immortality.

– Dalai Lama

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APPENDIX A

Request for Participation in Research Study with Informed Consent

Recruitment Message [Email]

Dear Fellow Pepperdine "Waves",

My name is Makeisa Gaines, and I am a doctoral student in the Graduate School of Education and Psychology at Pepperdine University. I am conducting a research study examining graduate students' perceptions of knowledge sharing within hybrid learning environments and you are invited to participate in the study. If you agree, you are invited to participate in a one-on-one semi-structured interview. There is an optional opportunity to review your transcripts to ensure the accuracy of your collected interview responses if you choose.

The interview is anticipated to take no more than 45-75 minutes total and the interview will be audio-taped.

Participation in this study is voluntary. Your identity as a participant will remain confidential during and after the study. Your identity will be protected by assignment of an alias. The audio-tape and any written notes from the interview will be destroyed after the dissertation is completed.

If you have questions or would like to participate, please contact me at:

Thank you for your participation,

Makeisa Gaines
Pepperdine University
Graduate School of Education and Psychology
Doctoral Student

PEPPERDINE UNIVERSITY
Graduate School of Education and Psychology

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

PERCEPTIONS OF KNOWLEDGE SHARING WITHIN HYBRID LEARNING ENVIRONMENTS: AS IRON SHARPENS IRON AMONG GRADUATE STUDENTS

You are invited to participate in a research study conducted by Makeisa Gaines, ELAP doctoral candidate, under the supervision of Dr. Michael L. Patterson at Pepperdine University, because you are a GSEP student currently enrolled in a hybrid academic program. Your participation is voluntary. You should read the information below, and ask questions about anything that you do not understand, before deciding whether to participate. Please take as much time as you need to read the consent form. You may also decide to discuss participation with your family or friends. If you decide to participate, you will be asked to sign this form. You will also be given a copy of this form for your records.

PURPOSE OF THE STUDY

The purpose of the study is to explore graduate students' perceptions of knowledge sharing within hybrid learning environments.

STUDY PROCEDURES

If you volunteer to participate in this study, you will be asked to respond to interview questions about your experiences with knowledge sharing within your hybrid learning academic cohort.

You will be audio-recorded to ensure that your responses are collected accurately. To participate in this research study, you must consent to be audio-recorded.

You may choose to review your interview transcript to confirm the accuracy of your collected interview responses. This is optional.

The approximate total length of time for participation is 45-75 minutes.

POTENTIAL RISKS AND DISCOMFORTS

The potential and foreseeable risks associated with participation in this study include potential breach of confidentiality and psychological risks such as discomfort to participant's self-esteem or self-efficacy. These risks will be minimized by assigning aliases to each participant to protect their identity and by destroying the audio-recording and any written notes, documents, or emails pertaining to the interview after the dissertation is completed.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

While there are no direct benefits to the study participants, there are anticipated benefits to society which include lessening the research gap pertaining to the study phenomenon.

PAYMENT/COMPENSATION FOR PARTICIPATION

You will receive a $10 Starbucks e-gift card for your time. The gift card will be emailed to you after the interview is completed.

CONFIDENTIALITY

The records collected for this study will be confidential as far as permitted by law. However, if required to do so by law, it may be necessary to disclose information collected about you. Examples of the types of issues that would require me to break confidentiality are if disclosed any instances of child abuse and elder abuse. Pepperdine's University's Human Subjects Protection Program (HSPP) may also access the data collected. The HSPP occasionally reviews and monitors research studies to protect the rights and welfare of research subjects.

Personal information, research data, and related written records will be stored on a password protected computer and locked file cabinet in the principal investigator's locked personal office to prevent access by unauthorized personnel. The researcher will have sole access to the data. Any identifiable information obtained in connection with this study will remain confidential. Your responses will be coded with an alias and transcript data will be maintained separately. The audio-tapes and any written notes will be destroyed once they have been transcribed. The data will be stored for a minimum of three years. The data collected will be audio-recorded and used for educational purposes. The participants will have the right to review/edit the transcripts from the audio-recorded interview to ensure accuracy.

SUSPECTED NEGLECT OR ABUSE OF CHILDREN

Under California law, the researcher(s) who may also be a mandated reporter will not maintain as confidential, information about known or reasonably suspected incidents of abuse or neglect of a child, dependent adult or elder, including, but not limited to, physical, sexual, emotional, and financial abuse or neglect. If any researcher has or is given such information, he or she is required to report this abuse to the proper authorities.

PARTICIPATION AND WITHDRAWAL

Your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

ALTERNATIVES TO FULL PARTICIPATION

The alternative to participation in the study is not participating or only completing the items for which you feel comfortable.

EMERGENCY CARE AND COMPENSATION FOR INJURY

If you are injured as a direct result of research procedures you will receive medical treatment; however, you or your insurance will be responsible for the cost. Pepperdine University does not provide any monetary compensation for injury.

INVESTIGATOR'S CONTACT INFORMATION

You understand that the investigator is willing to answer any inquiries you may have concerning the research herein described. You understand that you may contact the researcher, Makeisa Gaines or the faculty supervisor, Dr. Michael L. Patterson if you have any other questions or concerns about this research.

RIGHTS OF RESEARCH PARTICIPANT – IRB CONTACT INFORMATION

If you have questions, concerns or complaints about your rights as a research participant or research in general please contact Dr. Judy Ho, Chairperson of the Graduate & Professional Schools Institutional Review Board at Pepperdine University 6100 Center Drive Suite 500, Los Angeles, CA 90045.

APPENDIX B

Interview Guide

INTERVIEW PROTOCOL:

- Record Date and Time of Interview
- Indicate Participant's Assigned Alias Name
- Indicate Face-to-Face Interview or Virtual Video Conference Interview
- Record Start and Finish Time of Interview
- Follow Interview Checklist
- Use Probing Questions as Necessary:
  - *Can you explain more on your understanding of…?*
  - *Can you expound on your statement about…?*
  - *Can you say something more about…?*
  - *Can you provide an example of…?*
  - *Can you elaborate more about…?*

INTERVIEW CHECKLIST:

- **Greetings and Introductions**

- **Thank the participant for agreeing to participate in the study**
  [Thank you for agreeing to participate in the Perceptions of Knowledge Sharing Within Hybrid Learning Environments: As Iron Sharpens Iron Among Graduate Students research study. Your time and participation is very much appreciated.]

- **Review purpose of study**
  [The purpose of this qualitative research study is to explore graduate students' perceptions of knowledge sharing within hybrid learning environments. This investigation is important because it ultimately seeks to gain insight from master's or doctoral level students currently enrolled in hybrid academic programs at Pepperdine University, Graduate School of Education and Psychology about their lived experiences with knowledge sharing in their respective hybrid format academic program cohort and to understand the effects, if any, of knowledge sharing on overall student learning experiences.]

- **Summarize the Informed Consent Form, confidentiality, and participant rights**
  [Care will be taken to ensure your privacy and to maintain confidentiality of all data collected. Participant names will not be used in the study; an alias will be assigned to you and used. All data collected will be securely stored and accessible only by the researcher. You are free to decide to not participate in this study, withdraw at any time during the study, and/or refuse to answer any question without adversely affecting your relationship with the researcher or Pepperdine University. Any possible risk that might be associated with this research is minimal. It is anticipated that the results of the study will benefit a deeper understanding of knowledge sharing among graduate students within hybrid learning environments.]

- **Prepare for the start of the interview**
  [I will start by asking you a couple of general qualifying questions and then I will be asking you questions about your actual experiences and perceptions of knowledge sharing as a graduate student within a hybrid (part face-to-face, part online) academic program at Pepperdine University's Graduate School of Education and Psychology. What questions might you have before we start?]

- **Start audio recording and begin interview (use probes as needed)**
  [I would like to begin recording now. For the purposes of this interview, your alias name will be_____.

  This interview is being audio recorded on this date of _____ (date) *at* _____ (time).
  This interview is being held _____ (face-to-face or via virtual video conferencing).
  The participant being interviewed is _____ (participant's alias name).

  _____ (participant's alias name), *before I begin asking you the interview questions I would like to indicate that for the purpose of this interview, the term knowledge sharing is defined as an ongoing process in which individuals within an organization or group communicate to share thoughts, ideas, or solutions with the goal of ongoing voluntary exchanges of knowledge to the benefit of the organization or group (Davenport & Prusak, 2000) and specifically entails activities or behaviors involving the transmission of knowledge from one individual to another (Jalal, Toulson, & Tweed, 2010).*

INTERVIEW QUESTIONS:

1) What is the name of the graduate academic program at Pepperdine University, Graduate School of Education and Psychology that you are currently enrolled in and what is your current program year?

2) Have you have previously engaged in a hybrid learning environment aside from your currently enrolled academic program at Pepperdine University, Graduate School of Education and Psychology? If so, please indicate where and when.

3) How would you describe what knowledge means to you?

4) Based on the definition of knowledge sharing that I have provided you for this interview, how would you describe the phenomenon of knowledge sharing during group discussions in your academic cohort?

5) Do your academic cohort peers share their knowledge with you and others in your academic cohort at times other than during group discussions? If so, describe what and how.
   - What behaviors do your academic cohort peers exhibit when they share their knowledge with you or others within your academic cohort?
   - Do you feel as if your academic cohort peers hold back any relevant knowledge? If so, describe what and how?

6) Do you share your knowledge with others in your academic cohort? If so, describe what and how.
    - Describe a time that you shared your knowledge with a cohort peer. What and how did you share with them? Why did you share with them?
    - Did you hold back any relevant knowledge? Why or why not?
    - How does it make you feel when you share your knowledge within your academic cohort? Why do you think you feel that way?

7) In what ways, if any, do you prefer to share your knowledge within your academic cohort?
    - What tools or methods, if any, do you feel are useful to you in sharing your knowledge? Describe how and why these tools or methods are useful?

8) What are the factors or reasons, if any, that motivate you to share your knowledge?
    - Are there times when you are more willing to share your knowledge than other times? Why is that?

9) What are the barriers, if any, that have prevented you from sharing your knowledge and why?
    - What are reasons, if any, why you would not share your knowledge with someone in your academic cohort?

10) What effects or impact, if any, does the phenomenon of knowledge sharing have on your overall learning experiences as a graduate student within a hybrid learning environment at Pepperdine University's Graduate School of Education and Psychology?

POST-INTERVIEW:

- **Closing – Thank participant for participating in the study**
  [Thank you for your participation. What additional comments might you like to add before we conclude the interview? Again, thank you. All of your responses will be kept confidential. I will email you compensation for your study participation in the form of a $10 Starbucks e-gift car. As an option, you may choose to review your transcript to ensure the accuracy of your responses collected during this interview.]

APPENDIX C

IRB Approval

Pepperdine University
24255 Pacific Coast Highway
Malibu, CA 90263
TEL: 310-506-4000

NOTICE OF APPROVAL FOR HUMAN RESEARCH

Date: August 15, 2016

Protocol Investigator Name: Makeisa Gaines

Protocol #: 16-07-325

Project Title: Perceptions of Knowledge Sharing Within Hybrid Learning Environments: As Iron Sharpens Iron Among Graduate Students

School: Graduate School of Education and Psychology

Dear Makeisa Gaines:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at community.pepperdine.edu/irb.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph.D., IRB Chairperson

cc: Dr. Lee Kats, Vice Provost for Research and Strategic Initiatives